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CERTIFIED MILK*

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It is not necessary for me to tell you what certified milk is or to describe to you the methods of its production. You know as much or more about it than I do. It is also not necessary for me to go into the history of the development of certified milk, although, being older than most of you, I probably know more about the early development of the movement for certified milk than many of you. It is hardly necessary for me to remind you of the trials and tribulations of those who first attempted to produce it. Many did not succeed and some of those who did failed financially because of their success. The attitude of the various milk commissions was different and some were stricter than others. There were frequent disagreements between the milk commissions and the producers. The trouble was sometimes on one side, sometimes on the other. The establishment of the American Association of Milk Commissions with a common standard, the incorporation of Medical Milk Commissions by the state, and the better mutual understanding of the problems of the commissions and of the producers, have brought an end to most of the troubles of this sort.

It may be worth while, however, to look back and see what has been accomplished. In the first place, it has been proved that a safe, clean milk can be produced, if sufficient care is taken. In the next place, the methods necessary for the production of such a milk have been determined. Finally, it has been shown that babies can grow and thrive on such a milk without pasteurization or boiling. Far more important, however, is the improvement in the general milk supply, which is due more to the standards set up by certified milk than to any other single cause and probably more than to all other causes together. Inasmuch as the diminution in the incidence of the diarrheal diseases of infancy and in infant mortality during recent years is due more to the improvement in the general milk supply than to anything else, it is evident how important a part certified milk has played and how much has been accomplished by the movement for certified milk.

There is no doubt as to the need for certified

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milk in the past and as to what it has accomplished. The question is as to the need and demand for it now and in the future. Undoubtedly, there is at present much difference of opinion both as to the need and to the demand for it, which, unfortunately, are different. This difference of opinion depends, to a considerable extent, on the point of view of physicians as to the best methods of infant feeding and on the relative importance which they attach to different factors in the problem.

Everyone believes that, if milk is to be given to babies raw, it should be of the grade of certified milk. Many physicians, especially in and about Boston, believe that, whatever hypothetical advantages raw milk may have over pasteurized or boiled milk as a food for babies, it should never be used, because of the possibility that it may contain tubercle bacilli, the streptococcus of infectious sore throat or other pathogenic bacteria. They claim that milk, even when certified, is not a safe food for babies when raw. It must be admitted that tuberculosis and septic sore throat have been transmitted by certified milk. They have also been transmitted by pasteurized milk, that is, by milk supposed to have been properly pasteurized. That is, mistakes will occur and accidents happen wherever the human element enters. Are there any advantages in the use of raw over-heated milk as a food for babies? Opinions differ. Pasteurization destroys the antiscorbutic vitamin in milk. This is of no great moment, however, because the lack of this vitamin can be easily made up by the administration of fruit juices or tomato juice. Most of the enzymes in the milk are destroyed by pasteurization. There is no evidence, however, that any of the enzymes of cow's milk are of any use to a baby. Pasteurization does not make milk any more or any less digestible. There is no scientific proof that raw milk is any better than pasteurized milk for babies. Nevertheless, a considerable number of physicians, myself included, prefer to feed babies on raw milk, if possible, and believe that on the whole they do better on raw than on pasteurized or boiled milk. Such physicians feel the need of and

create a demand for certified milk raw. The great majority of physicians in and about Boston, however, do not believe in giving raw milk to babies, or, if they do, they do not give it to them.

If there is no advantage in raw over pasteurized milk as a food for babies, it is evident that all milk should be pasteurized to prevent the transmission of disease from bacterial infection through milk. If milk is to be pasteurized, is it necessary to have milk of the certified grade before it is pasteurized or will "Grade A" or even poorer qualities of milk do just as well? The cost to the consumer is very different and it seems foolish to pasteurize certified milk, if a poorer milk will do just as well. Certain physicians say, however, that, although pasteurization ought to destroy the pathogenic bacteria, it does not always do so and that it is advisable, therefore, to use as clean a milk as possible for pasteurization in order to diminish the chances of infection. Such physicians feel the need of pasteurized certified milk and create a demand for it. Many others, however, probably the vast majority, feel that the additional expense is unnecessary and that pasteurized "Grade A" milk is good enough. The laity, who have to pay for the milk, will certainly feel so, unless they are told by their physicians that "Grade A" is not safe, even when pasteurized, and that they should, therefore, bear the additional expense of certified milk.

The only real demand for certified milk is, therefore, from those physicians who prefer raw milk for babies and from those who think that no milk is safe for babies, even when pasteurized, unless it is of the certified grade. The number of the first class is small and that of the second not much larger, at any rate in Boston. The demand for certified milk in Boston is decreasing, only a little over 3000 quarts being now sold daily, or about 0.75 per cent. of the daily supply. The daily sale of "Grade A" milk has increased more than 3000 quarts during the past year, however, and now makes up nearly 4.5 per cent. of the supply. It is evident that, unless the opinions of physicians change, the demand for certified milk is not likely to materially increase. The present views as to infant feeding have been in vogue for several years now, however, and it is about time for the fashion to change. It is possible, therefore, that the demand may increase again in the next few years. It is also possible that the laity may be taught to appreciate the value of pure milk more than physicians do and that the demand may be increased in this way.

The need for certified milk is not as great as it was years ago, because of the great improvement in the general milk supply and the increased prevalence of pasteurization. If there was no certified milk, babies would still do very well. In fact, there would probably be no per-

ceptible change in either the infant morbidity or mortality, the general supply is so good. It would be a calamity, however, if the production of certified milk was given up. There is one great need for it; namely, to keep up the standard of the general milk supply. If there was no certified milk to serve as an example, I am confident that the general milk supply would at once begin and continue to deteriorate. It would not fall as low as it used to be, but would, I am sure, fall low enough to cause a definite rise in both infant morbidity and mortality.

It is essential, therefore, that the production of milk of the certified grade be continued. This can only be done through the coöperation of milk commissions and milk producers. Neither can get on without the other. The work of both must be largely altruistic. Both must expect their reward to consist largely in the satisfaction of feeling that they are reducing infant morbidity and mortality and contributing to the welfare and happiness of the human race. The milk producers can get an additional satisfaction from doing their job well and from producing a perfect milk. In fact, it must have been this satisfaction which has kept them on the job so long, for I am sure that most of them have lost money on every quart of certified milk that they have produced. It looks to me as if they could hope for little more in the future in Massachusetts, unless the milk commissions aid them more in impressing the importance of certified milk on both physicians and the laity than they have in the past. The pediatricists need instruction as much as the general practitioners as to the value of pure milk and as to what certified milk has done to raise the standard of the general milk supply, as many of the older ones have forgotten and the younger ones have never known how many babies were ill and how many babies died in the past as the result of impure milk. They take good milk for granted and do not appreciate how much they owe to it and how necessary it is to keep up the standard. The laity today, I think, realize the importance of good milk more than the physicians. The illness and death of their children made more impression on them than it did on the physicians and the tradition has been handed down to the present generation. They are willing, almost without exception, to pay whatever is necessary for good milk for their babies. They cannot be expected to pay the extra charge for certified milk, however, unless they are shown that it is necessary. They look to their physicians rather than to the milk producers for their advice. It is up to the physicians to see that the advice which they get is good. Finally, my sympathy is entirely with the producers of certified milk, who have done a remarkable piece of work without, in recent years at any rate, the proper backing of the medical profession and at a considerable financial loss.

THE LABORATORY CONTROL OF WALKER-GORDON CERTIFIED MILK*

BY ROBERT N. MCCLELLAN

THE LABORATORY CONTROL as practiced at the Walker-Gordon Farm at Charles River, Mass., includes medical, veterinary and equipment control. I shall describe briefly, in the order named, the methods pursued for each department of the laboratory supervision.

MEDICAL LABORATORY CONTROL

The physician makes a daily visit at the farm and performs a general physical examination of men applying for work. Carrier determination is made to detect carriers of haemolytic streptococci, diphtheria and typhoid. To this end a nose and throat swab and feces and urine specimens are taken for bacteriological examination and a blood specimen for the Widal test and Wassermann reaction. If tuberculosis is suspected a sputum specimen is examined. By means of appropriate tests it is possible to detect carriers of the above named diseases. Difco's Loeffler's Blood Serum is used for growing the diphtheria bacilli, Difco's Endo Medium for typhoid cultivation and Difco 1.5% agar and horse blood for growing the haemolytic streptococcus. The laboratory is located in the dairy building so that it is possible to obtain results of examinations in minimum time. The Wassermann tests are made at the Harvard Medical School. During the last sixteen months all of the men examined (except three) showed negative results to all tests; one showed haemolytic streptococci in a throat culture and the other two showed positive Wassermanns. In cases of employees complaining of sore throat swab cultures are made as a routine.

VETERINARY LABORATORY CONTROL

The routine examination of the milk includes bacteriological, chemical and microscopical examination of milk from groups of cows, individual cows and dairy samples. The two tests used are the Agar Plate Count and a modification of the Slack Sediment Test. The medium used for the plate count is Difco's 1% Approved Agar. The Standard Methods of the American Public Health Association are followed for bacteria determination.

The method of cooling and mixing the milk in use at the Walker-Gordon Farm is the spray vat. Two vats are used each having a capacity of 200 gallons; they are supplied with three paddles which insure a uniform mixing of the milk with a resultant uniform distribution of bacteria and butter fat. Two vats are used at each milking so that four samples examined daily give the bacteria and butterfat content for the entire day's production. The dairy samples are taken from the bottled supply and are

watched carefully for excessive bacteria counts. In addition to these tests, as often as is possible, bacteria counts are made of the milk from groups of six cows; this is done to detect "high counters." By taking six cows to a sample it is possible to go through the herd frequently and as a result the chances of detecting a "high counter" in the early stages are better than if we should wait for a dairy sample to be high and then start the search for the cow. Opinions vary as to what should be considered a high count cow; we keep a cow out of production if the bacteria count exceeds 10,000 per c.c. In addition to bacteria counts examination is made for abnormal milk which cannot be detected by the plate count or by physical examination. The method used is a modification of the Slack Sediment Test. There are four milking barns; each barn contains 72 cows. Every barn is divided into four sections with 18 cows to a section. Two streams of fore milk are drawn from each quarter of the cow. The milk from 18 cows is taken to every sample, making four samples to a barn and fourteen samples for the entire herd. Two c.c. of each sample are placed in a glass centrifuge tube and centrifuged at 3000 revolutions per minute for 10 minutes. The cream and skim are wasted and the stopper containing the sedimented leucocytes and bacteria is rubbed with a drop of water on a glass slide, dried, stained with methylene blue and examined microscopically. If a sample shows the presence of streptococci or excessive leucocytes, individual samples are tested from the group showing the increase and the cow (or cows) showing abnormal milk is detected. It is possible to obtain a microscopic picture of the milk of the entire herd in a short time by means of this test. Though not used primarily for detecting high count cows it has proven very efficient in this respect. This test is performed twice a week and serves as an excellent way of keeping a check on the abnormal milk. If a sample shows an excessive number of cells with a tendency to clump and if the cells are the polymorphonuclear type it shows that there is inflammation in the udder and that the milk is not normal. Cows producing milk with this condition present are kept out of production until their milk is again normal. We assume that by detecting inflammation in the early stages and treating the condition we prevent a great many cows from developing mastitis later.

If this assumption is correct it has a very definite economic value.

EQUIPMENT LABORATORY CONTROL

The bottles, nails and cans are sterilized by heating in a hot air oven for an hour at a tem-

*Read before the Massachusetts Association of Medical Milk Commissions at Springfield, June 4, 1928.

perature of 220 to 230 F. The cans, pipe lines, bottlers, etc., are sterilized by live steam. Routine tests are made for sterility of equipment. This is done by washing the utensils with sterile water and with subsequent determination of bacteria count of the rinse water.

This, in brief, is the laboratory control as

used at the Walker-Gordon Farm at Charles River. The research department of the Walker-Gordon Laboratory Company is located at the Plainsboro, N. J., Farm. This department is engaged in scientific research on dairying problems, so that refinements in our technical control are made as new methods are perfected.

A NOTE ON THE DIFFERENTIATION OF THE DIASTOLIC MURMURS OF AORTIC REGURGITATION AND OF MITRAL STENOSIS

BY PAUL D. WHITE, M.D.

THE importance of the recognition of the differences between the diastolic murmurs of aortic regurgitation and of mitral stenosis, and the frequent failure to appreciate these differences are the occasion for the present note.

The following table summarizes the chief differences between these two murmurs.

with pulmonic valve ring dilatation in chronic mitral stenosis. Aortic regurgitation is almost always due to organic disease of the cusps, rheumatic, luetic or arteriosclerotic in order of frequency, but in a few cases it may be due to dilatation of the ring, either from functional weakness or due to aortic diseases, usually with

	Aortic Regurgitation	Mitral Stenosis
<i>Time</i>	Early, immediately following the 2nd sound.	Later, beginning an appreciable interval after the 2nd sound, often immediately after the 3rd sound when it is present. It extends through mid-diastole if loud. If the stenosis is well marked and the rhythm normal it is followed by a presystolic accentuation and thrill, especially when the pulse is quickened after exercise.
<i>Character</i>	Blowing, often high pitched.	Rumbling, usually low pitched; rarely blowing.
<i>Site</i>	Maximal along the left border of the sternum, heard frequently at the apex, and rarely maximal at the aortic area (in such a case luetic aortic dilatation is usually present).	Maximal at the apex, and often limited to a very small area, but sometimes heard as far as the sternum.
<i>Position of Body</i>	Best heard in the upright position as a rule, and with the chest leaning forward.	Best heard in the recumbent position.
<i>Stethoscope</i>	Best heard with the flat chest piece with diaphragm; sometimes it may be heard better with the naked ear.	Best heard with the bell chest piece.

The aortic diastolic murmur indicates aortic regurgitation. It may occur without signs in the peripheral arteries and without increase in the pulse pressure as determined by blood pressure estimation. This is due to the fact that there is not enough aortic regurgitation to influence the pulse or blood pressure, and yet sufficient to cause the murmur. One should not hesitate to diagnose aortic regurgitation even in the absence of the peripheral arterial signs, such as the water-hammer and capillary pulse. The Duroziez' sign occurs only with well marked aortic regurgitation. The murmur of pulmonic regurgitation can probably not be differentiated in the characteristic noted in the table from the murmur of aortic regurgitation,

hypertension. The aortic second sound is often well heard with aortic regurgitation, but it is much diminished or absent with aortic stenosis.

The mitral diastolic murmur has been largely neglected until recent years. Only the presystolic phase found in some of the cases has been described and taught. However, it was recognized by C. J. B. Williams a hundred years ago, but it is very rare.* The functional type was described first by Graham Steele and is found

*A recent case observed at the Massachusetts General Hospital, however, presented a loud blowing early diastolic murmur almost wholly limited to the pulmonic valve area. Chronic marked mitral stenosis, prominent systolic pulsation over the pulmonic artery, abnormal right axis deviation and auricular fibrillation by electrocardiogram, congestive failure with cyanosis, and small radial pulse with normal diastolic blood pressure made the diagnosis of functional pulmonic regurgitation (Graham Steele) almost certain.

and well described by Graham Steele and Austin Flint. It is very important to note the mid-diastolic part of the murmur, since very often the presystolic phase is absent, especially in auricular fibrillation. The speed of the blood flow from the left auricle to the left ventricle through the narrowed mitral valve is usually greatest rather early in diastole at the time of the opening of the valve and not when the auricle contracts. In cases of normal rhythm the speed of the flow of blood is generally much reduced with auricular systole, because at that time the auricle may be almost empty, unless there is much mitral obstruction or tachycardia. Accentuation of the third sound is a frequent sign accompanying the mitral diastolic murmur, and just precedes it. It is heard best midway between the apex and the sternum. It is probably the result of the opening snap or tension of the stiffened mitral valve. A third sound may also be found in the normal heart, quite likely due to the opening of the auriculo-ventricular valves.

The Austin Flint murmur is exactly the same in all characteristics as the diastolic murmur of organic rheumatic mitral stenosis. It can be differentiated only by post-mortem examination, or by exclusion in some cases clinically of the probability of disease of the mitral valve, e.g., in patients with luetic aortitis and aortic regurgitation without rheumatic history or other evidence of mitral endocarditis. This Austin Flint murmur is best explained by the relative narrowness of the normal mitral orifice when

the left ventricular cavity is much dilated. It is, therefore, found occasionally not only with well marked aortic regurgitation, but also with left ventricular dilatation due to other causes, such as chronic adhesive pericarditis, or failure in hypertensive heart disease. This explanation is more comprehensive and logical than that ordinarily given, namely, that the regurgitant blood stream entering the left ventricle from the aorta compresses the anterior cusp of the mitral valve.

In some cases both diastolic murmurs, of aortic regurgitation and of mitral stenosis, may be heard together at the apex.

In recent years the tendency to concentrate on the study of the functional and etiological aspects of heart disease has favored somewhat the neglect of the careful study of structural defects or pathology. Revival of interest in the clinical application of auscultation of the heart is needed to aid in the discovery of such defects. Functional tests, whether of respiratory or exercise type, give information concerning physical fitness, including that of the circulation, but they have only limited value, and often are less important than auscultatory findings in diagnosis, prognosis and treatment. For example a robust man of middle age with early slight syphilitic aortic regurgitation may pass exercise and respiratory tests and yet have but a very few years to live.

The present note affords an example of the value of careful cardiac auscultation.

THE TREATMENT OF THE ATTACKS OF SYNCOPY OCCURRING IN ADAMS-STOKES DISEASE

BY SAMUEL A. LEVINE, M.D.*

In the treatment of Adams-Stokes Disease there are three different aspects that need to be considered. When the condition occurs in a patient who shows evidence of congestive heart failure therapeutic measures ordinarily employed in heart failure are used. Digitalis is by no means contraindicated and may improve the strength of the circulation so that edema and dyspnea will disappear. The second feature of the problem is whether the heart rate when beating regularly but slowly is sufficient. When the rate is very low, in the vicinity of 20 to 25, an improved circulation might result if that rate were raised to 30 or 35. With this higher rate there is no particular indication for treatment for it is ample to maintain an effective circulation even while the patient is ambulatory and carrying on moderate activities. The third part of the therapeutic problem in

this disease is the treatment of the syncopal attacks. During such periods the heart is at complete arrest and when this standstill is of sufficient length symptoms of varying degree develop from slight dizziness to unconsciousness and convulsions and death. There is a considerable number of patients suffering from Adams-Stokes Disease in whom the attacks themselves are the events to be feared, in whom the circulation otherwise is satisfactory. The discussion that follows concerns itself with the specific treatment of these attacks.

The use of adrenalin chlorid hyperdermatically has been recommended in recent years for the syncopal attacks of Adams-Stokes Disease^{1, 2}. It is obvious, however, that at a moment when the heart is at a standstill there is no peripheral circulation and subcutaneous injections of adrenalin will be worthless for that particular attack. It is however quite well established that adrenalin can initiate an inde-

*From the Medical Clinic of the Peter Bent Brigham Hospital, Boston. Read before the Association of American Physicians, May 4, 1928.

pendent ventricular rhythm if the drug reaches the heart. It therefore follows that if a patient who suffers from Adams-Stokes Disease is having an attack of syncope, adrenalin must be injected directly into the heart if an immediate effect is to be expected. This was done on two occasions to the same person and apparently proved to be life-saving.

This patient was a woman of 52 whose past history was unimportant except for a severe attack of diphtheria* at the age of six. In addition, for fifteen years previous to her admission to the hospital she had frequent attacks of epigastric pain that were probably due to gallstone colic.

Her chief complaint was that for one year she suffered with frequent attacks of unconsciousness. Physical examination was negative except for the heart. There was moderate cardiac hypertrophy. The heart rate was slow, about 35 to the minute with a moderately loud systolic murmur all over the precordium. No diastolic murmur was heard. Electrocardiograms show complete heart block. Wassermann test was negative. She was regarded as suffering from Adams-Stokes Disease.

During the period of observation she had frequent dizzy and faint spells and on several occasions lost consciousness. At such times there was complete standstill of the heart as proved by frequent heart tracings that were obtained. During two of these attacks the patient became unconscious and no heart beat could be heard, seen or felt for a period of four to five minutes. It seemed unlikely that spontaneous contraction would begin. After several minutes had elapsed 0.5 c.c. of adrenalin chlorid was injected directly into the heart, whereupon contractions soon returned and the patient recovered. At other times when spells of shorter duration were occurring adrenalin was frequently given intramuscularly. For a period of one or two hours after an intramuscular injection the patient remained free of attacks but they subsequently returned. In other words, while under the influence of adrenalin she was protected from standstill of the heart, but at the moment when a major spell occurred the drug had to be injected directly into the heart. Several months later the patient suddenly died, adrenalin not having been used. Complete details of the events during such a spell were recorded electrocardiographically³ and showed long periods of fibrillation of the ventricle followed by complete inactivity of the heart. This experience proves that restoration of bodily function may occur even after an arrest of the circulation as long as five minutes.

It follows from the above that adrenalin is a

*There has been an early history of diphtheria in several cases of Adams-Stokes Disease where there was no evidence of syncope. This brings up the likelihood that a late manifestation of diphtheria may be injury to the conduction apparatus of the heart.

valuable aid in the treatment of syncope attacks occurring in Adams-Stokes Disease, but it has proved of little value in preventing the recurrences, although for short periods after each injection the patient may be rendered free from such attacks. It has recently been found⁴ that barium chlorid given by mouth may in some cases actually prevent the attacks of asystole from recurring. The reason for this effect rests upon experimental evidence which points to the fact that barium increases the irritability of the ventricle⁵. It is just this effect of barium on the ventricle that is desired in Adams-Stokes Disease, for when impulses fail to originate at the auricular ventricular junction in complete heart block, if some other portion of the ventricle is sufficiently irritable a new pacemaker might be established or the sluggishness of the old pacemaker might be stimulated so that standstill of the heart would be prevented. There is now some clinical evidence in the cases reported to show that this takes place. Apart from three cases already reported¹ I have recently received word from two physicians who found barium chlorid to be effective in preventing these attacks. In both instances the cases were well controlled and showed repeated attacks of syncope that promptly were controlled after barium was administered.

The exact dosage required in this connection is not certain but probably is in the vicinity of 30 mgms. four times a day by mouth. The drug is best followed in a half hour by intramuscular injection of 0.5 c.c. of adrenalin chlorid. As the attacks disappear the adrenalin chlorid may be omitted while continuing the barium chlorid. Exactly how long is necessary to continue the barium is not clear. After a period of a few weeks one should diminish the dose gradually and determine the course to be followed depending upon results obtained.

SUMMARY

In the treatment of patients suffering from Adams-Stokes' Disease the specific treatment of the syncope attacks presents a distinct problem apart from whether or not there is congestive heart failure. Often these attacks are fatal in patients who have been ambulatory and have been maintaining a satisfactory circulation. Clinical experience is presented here to show that during the long attacks of asystole of the heart that occur with the unconscious periods in such patients, adrenalin chlorid if injected directly into the heart may be life-saving. It is obvious that at the moment when there is no circulation, intramuscular or even intravenous injections would be useless. It is true, however, that if a patient recovers there is a period of a few hours following intramuscular adrenalin injections during which he may be free from attacks, although there is no indication that

adrenalin itself prevents the return of attacks.

Recent experience with the oral administration of barium chlorid indicates that it is very valuable in actually preventing recurrences and the successes warrant a further trial of this medication when attacks of syncope are frequent.

BIBLIOGRAPHY

- 1 Phear, A. G., and Parkinson, J.: Adrenalin in the Stokes-Adams Syndrome. *Lancet*, 1922, p. 933.

- 2 Fell, H.: The Use of Epinephrin in Stokes-Adams Syndrome. *J. A. M. A.*, 1923, LXXX, 26.
- 3 Levine, S. A., and Matton, Marcel: Observations on a Case of Adams-Stokes' Syndrome Showing Ventricular Fibrillation and Asystole Lasting Five Minutes with Recovery Following the Intracardiac Injection of Adrenalin. *Heart*, 1926, XII, Part III.
- 4 Cohn, A. E., and Levine, S. A.: The Beneficial Effects of Barium Chlorid on Adams-Stokes Disease. *Arch. Int. Med.*, 1925, XXXVI, 1.
- 5 Rothberger, C. J., and Winterberg, H.: Ueber die experimentelle Erzeugung extrasystolischer ventrikulärer Tachycardie durch Accelerationsreizung. *Arch. f. d. ges. Physiol.*, 1911, 142:461.

MEDICAL PROGRESS

PROGRESS IN PSYCHIATRY

BY ISADOR H. CORIAT, M.D.

THE MALARIAL TREATMENT OF PARESIS

THE malarial treatment of paresis is conveniently summarized in two recent contributions ("The Treatment of General Paralysis by Inoculation with Malaria" by Dr. Henry A. Bunker, Jr., and Dr. George H. Kirby, *Journal of the American Medical Association*, February 21, 1925, and "The Malarial Treatment of Paretic Neurosyphilis" by Drs. Nolan D. C. Lewis, Lois D. Hubbard and Edna G. Dyar, *American Journal of Psychiatry*, October 1924). The first of these investigations is from the New York Psychiatric Institute and the second from St. Elizabeth's Hospital at Washington, D. C. In the first of these papers, the following conclusions are summarized:—

"Between June, 1923, and November, 1924, fifty-three unselected patients with general paralysis, in the male service of the Psychiatric Institute, have been inoculated with tertian malaria.

"Of the fifty-three patients inoculated, eleven have been treated too recently to allow an expression of opinion; two received a course of malaria on two separate occasions, and one failed to acquire the infection after repeated inoculation.

"Of the thirty-nine patients remaining, six died during the actual treatment (five) or within a month of its completion (one), and one died eight months subsequent to treatment, after a slight remission of five weeks' duration. Three of the group of six died as a direct result of convulsions; in the case of the other three, death may have been hastened, but was hardly directly caused, by the malaria.

"Of the thirty-two patients now alive at the end of from three to thirteen months from the conclusion of treatment, fourteen are considered as either unimproved or more or less improved (only one of these fourteen is definitely worse), and eighteen are considered as much improved and may be regarded as exhibiting fairly complete remissions, with a residual mental defect.

save in the case of perhaps two patients either undemonstrable or of the slightest degree. Seventeen of these patients were discharged from the hospital from one to ten months ago, and fourteen have returned to their former occupations.

"Our results, completely confirmatory of the data of similar type already published, lead us to believe that treatment of general paralysis with malaria is unquestionably a method of value. We believe that the proportion of cases in which the disease appears to be brought to a standstill as judged by clinical criteria, in addition to the proportion in which a striking degree of mental improvement comes about, is in itself not without possible significance."

The second contribution summarizes the results as follows:

"1. A survey of the history of treatment in paretic neurosyphilis reveals the fact that, generally speaking, the results have been somewhat disappointing, and up to the present very little can be added to the prognostic remarks made by Mickle in 1886 before paresis was known to be a form of syphilis.

"2. In our review of a portion of the literature we laid special emphasis on the early methods of treatment, and particularly how some of them, in a way, anticipated the recent attacks by the production of induced fevers. The hopeful results secured by the exponents of the acute fever methods have been reviewed rather extensively, and these reports reveal an enthusiasm which we hope will be justified by further experience with this type of approach.

"3. Some interesting statistics concerning both white and colored paretics admitted to St. Elizabeth's Hospital during the past 40 years have been arranged, and the fact that 1198 patients of 1558 admissions have died of the disease while still in the same hospital is ample testimony as to the outcome expected, regardless of treatment.

"4. Concerning the group of paretic patients selected at St. Elizabeth's Hospital for malarial

treatment the following remarks may be offered. Sixty-eight cases were originally selected, nine of these failed to develop malaria and eight more were not available at the time of thorough re-examination of results, thus 51 cases remained for final consideration. Of these 16 were complete remissions (31 per cent).

"These expressions of the results are to be considered very hopeful since a critical attitude toward them has been maintained throughout, and they do not depend upon the opinions of a single observer.

"5. Four treated cases came to autopsy, and we have attempted to summarize the pathology as found therein. Few comments have been made in the text relative to the classical neuropathology of general paresis since the character of these lesions is well known.

"While the cases studied microscopically, obviously represent the failures, they serve to emphasize the necessity of treating the cases as early as possible in the disease before the permanent damage has been done to the brain structures. This permanent change is indicated among other signs by the atrophied, sclerotic, disordered cortical architecture, the disintegration of neuron cells, dense neurogliosis, and in adventitious reactions. However, there are indications that some types of treatment including the malarial tend to reduce the exudate, since in these brains there was apparent reduction in the plasma cell and lymphocyte infiltration of both meninges and perivascular spaces, certainly these brains exhibited far less exudate at termination than the average parietic.

"There was a marked tendency to capillary hemorrhages and thromboses through the brains of those who died early in the experiment, this reaction in the newly formed capillaries of parietic brains may account for the untoward results and production of neurologic symptoms which may be transitory as reported by some of the European workers who have used the malarial treatment.

"6. In two of these brains spirochetes were not found, but in the other two, a few apparently damaged ones were demonstrated. It is obvious that any "cure" or permanent remission in paresis must depend upon the total destruction of spirochetes in the brain tissues, and various theories have been offered to support the fever methods of treatment. Franck believes that the species of spirochetes invading the central nervous system confers upon it increased resistance against therapeutic action, but after fever-inducing treatment the opportunities are better for destroying the spirochete. Wagner-Jauregg endorses the theory that acute infections weaken the hemato-encephalic barrier, thus allowing the passage of therapeutic substances from the blood to the surrounding brain tissues. He believes that this barrier is made

more impermeable by arsenical, alcoholic or other drug intoxications.

"A recent communication from a district in China is of interest in this connection. It is stated that 90 per cent of the 3,000,000 people of Hainan harbor have attacks of malaria during the course of a year, and that probably all carry the parasites in their systems. Also syphilis in the primary, secondary and tertiary forms is one of the commonest diseases (affecting from 50 to 60 per cent of the population), but the symptoms of neurosyphilis are rarely encountered, and the author during an eight years' residence has not seen a case of general paresis, and has seen only two or three cases of tabes. Does this practically universal infection (active and latent forms) with malaria prevent the spirochete from invading the tissues of the central nervous system? At least such striking observations deserve careful investigation as to the causes for such deviations from the usual, and should cast valuable light upon this difficult subject.

"One way in which the influence of malaria upon general paresis may be exerted is through the effect of intermittent waves or shocks of high temperature upon the spirochete, which type of fever may be more efficacious than a continuous temperature, to which the organisms might have a better chance to adjust, or, as others believe, that following an inoculation there is a great impoverishment of the blood followed by active and rapid regeneration processes leading to reactivation of immunity mechanisms.

"7. According to the Wagner-Jauregg clinic the histological changes in cases dying in remission after malarial treatment resembled the "stationary paralysis of Alzheimer" with almost complete absence of the usually found progressive picture.

"In the recent report of Jossman and Steenarts it was mentioned that seven brains from malarial treated patients had been given to Professor Bielschowsky for study and that he had made a preliminary report to the effect that no spirochetes had been discovered in these brains; however, regressive changes were not observed since an insufficient length of time had transpired since the inoculations.

"8. A notable improvement in the lymphogenic cell reactions had taken place in the brain structures in one patient who died after trypanosomic treatment although there was no regression in the usual chronic picture of paresis."

THE PSYCHOPATHOLOGY OF EXHIBITIONISM

Exhibitionism is a subject of great medical and legal importance. The condition was first described by Lasague in 1877, but the perversion was not subjected to any detailed analysis

until Freud published his "Three Contributions to the Theory of Sex" in 1905, all previous accounts having been more on a descriptive level. Therefore this extensive article by Dr. Ben Karpman (*Psycho Analytic Review*, Vol. 13, No. 1, January 1926) is of timely interest. As a result of his investigation, the author draws the following conclusions.

"1. Exhibitionism is a widespread psychic reaction that reveals itself as the pleasure an individual has in displaying himself in an exposed nude form. As a normal phenomenon, it is expressed in much of the acceptable social behavior, but as a pathologic phenomenon it is distinctly an expression of a psychic disease that has all the characteristics of a severe compulsion neurosis.

"2. Nudity is a natural normal state among primitives but becomes repressed and forbidden when clothing, and with it, the sense of shame, makes its appearance as a later development among civilized nations.

"3. The exhibitionist as an individual may be described clinically as suffering from a neurosis with the usual concomitants of the condition. The family history is not infrequently tainted, while the personal history shows that the man is heavily burdened, particularly on the emotional side. These burdens are expressed in many psychoneurotic features, abnormal psychosexual life, regressive fixations, and many other neurotic reactions.

"4. While the onset of the disease is ordinarily attributed to a variety of factors, a more careful study reveals that these are only superficial and that the true causes lie deeply buried in the early life of the individual.

"5. The exhibitionistic act appears in the individual exhibitionist as an impulsive and unconquerable reaction with the prodromal symptoms not unlike those observed in severe anxiety attacks, and the act itself resembling an acute hallucinatory-like dream state. During this waking dream state the individual is completely out of touch with the present environment and reality, but is regressing, re-living in fantasy earlier childhood scenes. His victims are usually women and children and the attack may take place anywhere, irrespective of the setting; the parts exposed are most often the genitals. To be noted here is that the parts exposed are those which the individual regards as particularly significant erogenous zones, which he seeks to see in others as well as wishes others to see in him.

"6. The act, being psychically a complete equivalent of a psycho-sexual activity, it is not universally accompanied by erection, orgasm, masturbation, or other forms of sexual activity.

"7. The recovery is often followed by a state of confusion and is accompanied by depression, deep feeling of remorse, and a determination

never to repeat the act. However, all these resolutions, unquestionably sincere, invariably fail in their effect, which shows how truly sick these individuals are and how heavily they suffer in consequence of the uncontrollable urge, which, as they often spontaneously remark, overtakes them with such overwhelming force as to be beyond their control.

"8. The foundation for exhibitionism is laid in the early activities of normal childhood. The activities have to do primarily with the development and role of the infantile partial sex impulses, erogenous zones, fore-pleasure, and end-pleasure activities. Among the infantile partial sex impulses are the impulses for looking and showing off with eye as an erogenous zone and some parts of the body, usually the genitals, as a genital zone. In adult life the infantile partial sex impulses normally become a part of the fore-pleasure activities, but some individuals may become so fixated at one of these stages that the fore-pleasure activity takes the place of and becomes in itself an end-pleasure activity.

"9. The looking and showing off impulses may thus become perverted and express themselves in voyeur and exhibitionistic activities. The particular circumstances which appear to condition this type of infantile behavior are to be found in the early environmental influences. There is to begin with the parental, most often maternal, influence in cultivating and unduly exaggerating the narcissistic tendencies of the child, and this quite inevitably is followed by the development of a strong mother attachment. The witnessing of numerous bedroom scenes further stimulates the child's voyeur and exhibitionistic tendencies and lead to the feeling and phantasy that in mother's affections he might and should take the place of the father; and this quite logically is followed by the development of a typical Oedipus situation and its concomitant phenomena.

"10. Obligated to repress the incestuous cravings, the child's surging sexuality is led into aberrant avenues of expression with exhibitionism as one of its adaptations. A part of the libidinous energy is often diverted into autoerotic channels, the practices being accompanied by exhibitionistic phantasies in which he and the mother are participants. But in any instance the child, seeking yet unable to exhibit himself before his mother or seeing herself exhibiting to him, will seek the same in a substituted form that would be nearest possible approach to the original situation; the opportunity for this he finds most easily before children.

"11. The continuous operation of abnormal sex drives leads to the development of a sexual inadequacy, and when such individual reaches adolescence he finds himself quite unable to meet adequately the demands of normal sex life. He will then attempt to fall back on his child-

hood and look for a substituted form of expression. An eruption of exhibitionism is then imminent, and it often requires but a relatively minor emotional situation to precipitate it in an acute and not infrequently even violent form. Such exhibitionistic attacks are essentially regressions in every sense of the word; it is a symbolic seeking of repetition of particular, vividly remembered acts and scenes of by-gone days of childhood. The victim usually symbolizes the patient's mother (or her surrogate); again, the exhibitionist, especially if the victim is a child, may by a process of identification and differentiation identify himself on one hand with the victim and on the other hand with his mother.

"12. Exhibitionism is a major perversion and takes the place of an end-pleasure activity. It is a substitute for forbidden incestuous cravings, and because as a substitute it cannot fully effect complete release or gratification, the urge is never stilled, and finally assumes the character of a compulsion neurosis.

"13. A psychopathologic study shows exhibitionism to be a compulsion neurosis and, as an expression of unconscious urges, essentially regressive in nature. The exhibitionist, as thus seen, is a very sick individual whom it is useless to punish legally but who instead must be treated psychotherapeutically."

(Analysis of cases of exhibitionism shows that we are dealing with a condition of unconscious homosexuality, and that the purpose of the perversion is two-fold: first, to stimulate what the patient feels is the weakest part of his libido, that is, the male component, secondly, the perverted act arises from hatred of women and so the genitals are compulsively exhibited in order to shock and humiliate them. I. H. C.)

PSYCHIC MANIFESTATIONS OF BRAIN TUMORS

In an interesting paper Dr. Frederick P. Moersch (*American Journal of Psychiatry*, Vol. 4, No. 4, April, 1925) points out that practically all patients afflicted with brain tumor have mental symptoms at some period of the disease, that such symptoms are extremely variable and that marked fluctuations may occur in any given case. The question naturally arises, are the psychic phenomena accompanying brain tumors worthy of study, will they serve as an aid in diagnosis, and if so, is there any method of conducting such an inquiry?

Any plan for the study of the mental status in cases of brain tumors is attended with innumerable difficulties. In the entire series of cases of brain tumor observed in the Mayo Clinic, the psychic phenomena have not been uniformly investigated and accurate percentages cannot, therefore, be given. However, 237 cases were reviewed in which fairly accurate records of the mental status have been made and from this material the following conclusions are drawn.

"In reviewing the psychic changes in brain tumor it will be found that they tend to arrange themselves into three groups:

I. *General Symptoms*—these are as vague and difficult of interpretation as are other general symptoms from the neurological standpoint. The more generalized symptoms are mild mental and physical let-down (neurasthenic states), mild changes in the personality, anxiety states, depressive reactions, mental confusion, and deteriorating states, the latter simulating such disorders as epilepsy, arteriosclerosis, senile dementia, vascular and traumatic lesions, paresis, and dementia praecox. These reactions according to the writer are rarely ever sufficient to aid in the localization of a tumor, but frequently may serve as a clue to the correct diagnosis.

II. *Specific Mental Reactions*—these are changes in the personality, impaired mental grasp, impaired insight, judgment and mental activity, and disturbances of general motility. "When these factors are present, in the absence of any focal neurological signs, one may speak of a frontal lobe syndrome, understanding that this is not a positive syndrome, but is very suggestive of a lesion in the forward portion of the cerebrum. These mental changes may be of varying intensity, show marked fluctuations, and, as a rule, appear late in the disease, the minor changes probably having been entirely overlooked in the early stages of the affection.

"III. *Associated Mental Reactions*—Under this heading are considered the mental states associated with brain tumors in which a direct relationship is difficult to establish. Thus hysterical episodes, maniacal states, or other psychotic states which occasionally lead to institutional confinement may at times be quite independent of the effects of the neoplasm. Undoubtedly the marked changes brought about by a new growth in the brain are likely to precipitate psychic alterations, especially in neuro-pathic individuals in whom the stabilizing qualities are none too good."

The writer concludes that a psychiatric examination is of considerable aid in all cases of suspected brain tumor, regardless of location, type of tumor, stage of the disease process or mental status of the patient.

INFLUENZA AND SCHIZOPHRENIA

In a further study of the psychiatric aspects of influenza, Dr. Karl A. Menninger (*American Journal of Psychiatry* Vol. 5, No. 4, April 1926) points out that in the psychoses appearing in close conjunction with influenza, as observed during the 1918 epidemic, the schizophrenic syndrome was by far the most frequent. The previous epidemics of influenza occurred prior to Kraepelin's formulation of dementia praecox, hence 1918 was the first opportunity afforded for the determination of the relationship of

these two wide-spread afflictions as at present conceived.

Of about two hundred acute post-influenzal psychoses observed at the Boston Psychopathic Hospital, one-third resembled and were diagnosed as dementia praecox. A follow-up inquiry made one to five years later revealed that of about fifty of these that could be traced, two-thirds had apparently completely recovered and only ten living cases showed no improvement.

The writer draws the following conclusion from this analysis made five years later:

"1. There are three outstanding features in the analysis made of the data pertaining to post-influenzal psychoses of the schizophrenic type:

(a) Schizophrenia was relatively the most frequent psychiatric syndrome.

(b) It occurred with and without evidences of hereditary taint or predisposition.

(c) Most of the cases so diagnosticated made more or less complete recoveries.

"2. If we retain the Kraepelinian conceptions of dementia praecox, we must think that influenza precipitated many cases which seemed in the acute phase to be dementia praecox, but of which relatively few ultimately verified this early diagnosis, and were somatic psychoses or cyclothymic psychoses of strongly schizophrenic coloring.

"3. For those, including the author, who reject Kraepelin's conception of dementia praecox in favor of the conception of a schizophrenic syndrome, representing certain kinds or phases of psychic disintegration arising upon varied bases and following varied courses (i. e., showing varied degrees of reversibility), the conclusions from the influenza series would be that many such schizophrenic syndromes occurred immediately subsequent to influenza, but of the entire series the great majority ultimately recovered, some promptly, some only after a year or more; a few progressed to various degrees of dementia. This would indicate a relative benignity of this process.

"4. This schizophrenic picture has been reported under a variety of names by most of the writers on post-influenzal psychoses. All agree that the syndrome occurs in both predisposed (schizoid) and unpredisposed (syntonic) individuals. There is some disagreement as to the relative frequency of the schizophrenic syndrome, but general agreement as to the good prognosis.

"5. The small incidence of all the major psychoses subsequent to influenza relative to the enormous morbidity of influenza would indicate that while the influenza-schizophrenia relationships offer much subtle material for elucidating the inner structure of mental mechanisms, they do not offer many direct problems of management or treatment."

INVOLUTION PSYCHOSES

In an interesting paper (*Bulletin of the Massachusetts Department of Mental Diseases*, April 1926) Dr. James V. May gives a review of the literature of the involution psychoses in connection with clinical material from the Boston State Hospital. As a result of his investigations and observations he draws the following conclusions:

"1. There is a considerable number of paranoid conditions, more common in women, characterized by hallucinations of hearing and delusions of persecution and developing between the ages of forty and sixty, not attributable to alcoholism, arterio-sclerosis or senility, and obviously not related to dementia praecox.

"2. There is an equally large number of schizophrenic conditions, more common in women, appearing for the first time during the involution period of life in individuals who have never before shown anything suggesting dementia praecox.

"3. Involution melancholia as a clinical entity would appear to be thoroughly justified and clearly separable from the manic-depressive group by the exhibition of a symptom-complex which presents itself only during the involution period.

"4. Single attacks of excitement appearing for the first time during the involution period are rare and may be of somatic origin.

"5. While these manifestations are in many instances probably exaggerations of latent tendencies peculiar to the makeup of the individual, a constitutional basis for these conditions is not yet clearly established.

"6. We would appear to be justified in the formulation of the hypothesis that there is a well-defined clinical group of Involution Psychoses including all of the types already enumerated and almost certainly others, to be determined by further investigations.

"7. This group may be defined as including the following—

1. Manic Types.
2. Involution Melancholia.
3. Other forms of Depression.
4. Paranoid Types.
5. Schizophrenic Types.
6. Presenile Types (Alzheimer's Disease).
7. Other types (to be specified)."

(In this connection the analytic studies of melancholia by Abraham and Freud may be mentioned. In a paper entitled "Mourning and Melancholia" published in 1917, Freud points out an interesting relationship between the two conditions. He suggests that melancholia is in some way related to an unconscious loss of a love object, in contradistinction to mourning, in which there is nothing unconscious about the loss. I. H. C.)

PHYSIQUE AND CHARACTER IN THE PSYCHOSES

In his illuminating and stimulating work on "Physique and Character" (English translation by W. J. H. Sprott, published by Harcourt, Brace and Co., New York, 1925) Kretschmer has opened up new vistas in both descriptive and interpretative psychiatry. The basis of this work is limited to the two principal psychotic groups, schizophrenia and manic-depressive insanity. In it Kretschmer has attempted to correlate the character types and temperaments and the physical configuration in these two groups, in other words to determine if there existed any relationship between these fundamental psychoses and their bodily make-up.

As a result of an investigation of the psychiatric material, three physical types emerged which may be briefly described as follows:—

1. Asthenic type, that is, a deficiency in thickness combined with an average unflesshed length.
2. Athletic type, characterized by a strong development of the skeleton, the musculature and the skin.
3. Pyknic Type—which is characterized by pronounced peripheral development of the body cavities and a tendency to a distribution of fat about the trunk.

Two hundred and sixty cases were minutely investigated according to a definite scheme and the striking correlation between physical and psychic dispositions, is shown in the following table:—

	Circular	Schizo- phrene
Asthenic	4	81
Athletic	2	31
Asthenico-Athletic mixed	2	11
Pyknic	58	2
Pyknic mixture	14	3
Dysplastic	—	34
Deformed and uncataloguable forms	4	13
Total	85	175

In discussing this relation between physical type and psychic disposition, Kretschmer reaches the following conclusions:—

"In the case of circulars, among a number of mixed and indefinite forms, we find a marked preponderance of the pyknic bodily type on the one hand, and a comparatively weak distribution of the classical asthenic, athletic, and dysplastic forms on the other.

"In the case of schizophrenes on the contrary, among a number of heterogeneously mixed and indefinite forms we find a marked preponderance of asthenic, athletic, and dysplastic types (with their mixtures) on the one hand, and a surprisingly weak distribution of typical cases of the pyknic bodily type on the other.

"The results can be formulated as:—

(1) There is a clear biological affinity between the psychic disposition of the manic depressives and the pyknic body type.

(2) There is a clear biological affinity between the psychic disposition of the schizophrenes and the bodily disposition characteristic of the asthenics, athletics, and certain dysplastics.

(3) And vice versa, there is only a weak affinity between schizophrenia and pyknic on the one hand, and between circulars and asthenics, athletics, and dysplastics on the other."

The organic or physical configuration and the functional or character traits of certain psychoses are probably not independent, but there is a fusion of the psychic with the somatic. As Kretschmer states:—"Physique and psychosis do not stand in a direct clinical relation to one another. The physique is not a symptom of the psychosis, but—physique and psychosis, bodily function and internal diseases, healthy personality and heredity, are each, separately, part symptoms of the constitutional basis which lies at the bottom of the whole, and are indeed bound together among themselves by affinitive relations."

In the discussion of the types of personality (Schizoid and cycloid) as they correspond to the circular (manic-depressive) and schizophrenic groups, the following quotations may be selected from the extensive material.

"We describe as schizoid and cycloid those abnormal personalities which fluctuate between sickness and health, which reflect the fundamental psychological symptoms of the schizophrenia and the circular psychoses in the lighter form on a personal oddity; such schizoid and cycloid types we find in the first place in the pre-psychotic personalities of the psychopaths themselves, and then in their nearest blood-relations. These two groups of men give us a certain foundation for our description. If we have found them, then we are eventually justified in describing such abnormal individuals as schizoid and cycloid, who, in their psychic and bodily habitus, are built analogously to these, without having the corresponding psychosis in their own immediate circle."

"Cycloid men are sleek and uncomplicated beings, whose feelings rise directly, naturally, and undisguised to the surface, so that everyone can soon get a correct judgment of them. Schizoid men have a surface and a depth. Cuttingly brutal, dull and sulky, bitingly sarcastic, or timidly retiring, like a mollusc without a shell."

LUMINAL IN EPILEPSY

In order to gain further information as to the therapeutic effects obtained and the relative value of various methods by which luminal may be given, a comparative study was undertaken

of the results secured by the oral, subcutaneous, intravenous and intraspinal methods of treatment. ("A Comparative Study of Various Methods of the Administration of Luminal in Epilepsy" by Drs. Harold A. Patterson, Le Grand A. Damon and Paul Levi, *Journal of Nervous and Mental Disease*, Vol. 63, No. 5, May, 1926.)

For this purpose a series of four groups of selected cases was chosen from among the inmates of the Craig Colony for Epileptics. The results obtained led to the following conclusions:—

1. Luminal may be given orally, subcutaneously, intravenously, or intraspinaly.
2. No ill effects have followed the administration of therapeutic doses of this drug by any of these methods.
3. No tolerance is developed for phenobarbital by any of the forms of treatment used.
4. The effect of luminal in epilepsy is palliative rather than curative.
5. Sudden withdrawal of the drug is contra-indicated.
6. Luminal treatment by any of the four methods mentioned apparently has more influence upon severe than mild attacks.
7. The period required for the appearance of therapeutic effects is as follows: Orally, $\frac{1}{2}$ hour; subcutaneously, 15/30 minutes; intravenously, almost immediately; intraspinaly, $\frac{1}{2}$ hour or more.
8. The subcutaneous method of administration is preferable in serial seizures.
9. The employment of the intravenous method is indicated in status epilepticus.
10. Intraspinal injection may subsequently render refractory cases more amenable to other types of treatment."

IMPORTANCE OF MEAT INSPECTION

The housekeeper today who is concerned with the health of her family recognizes the importance of buying food which is not only handled under sanitary conditions, but she wishes to be assured that it is safe for consumption. In the selection of meat she watches for the little purple stamp which assures her that it has been inspected by Federal authorities and so is safe for her use. Or, she may find a larger purple stamp on the Sunday roast which tells her that it has been passed by a Connecticut meat inspector.

Many people, however, do not appreciate what lies back of these purple stamps. This was all too forcibly shown at the State Fair at Hartford last fall when the Commissioner on Domestic Animals had on display certain organs of meat and dairy cattle which were mottled with tuberculosis lesions. This was a gruesome but effective message to the public, and taught them to beware of using meat which has not received the stamp of safety.

In 1906 the Federal meat inspection law was passed by Congress. This gave power to the United States Department of Agriculture to inspect food animals before and after slaughter, in order to eliminate such animals or such parts of the carcass as are found to

be unsafe for food. It also provides for the safe handling and production of meat products.

Now this law is excellent as far as it goes, but it only applies to meat and meat products in interstate commerce. It has been estimated that only about 60 per cent. of meat and meat products in the United States are handled under the protection of this law. What about the other 40 per cent.? Unless there is a corresponding law in each State to protect the public against unsafe meat produced within the State, local meat may be far from safe for consumption.—*Bulletin of the Connecticut State Department of Health.*

DEATH RATE FROM TUBERCULOSIS DECREASING

Lower death rates from tuberculosis (all forms) were registered in 1924 than in 1900, for each age period for both sexes, in the Registration States of 1900, as shown by figures recently issued by the Department of Commerce. The amount of this decline in death rates ranged from 73 per cent. for females under 1 year of age to 37 per cent. for females aged 15 to 19 years.

This decline in tuberculosis death rates is not limited to the United States. Similar declines are recorded in the death rates of England and Wales. A comparison of the 1924 death rates from tuberculosis (all forms) for England and Wales with the corresponding 1924 rates for the United States Registration States of 1900 reveals lower rates in the United States for each age period up to age 55 for each sex. The greatest per cent. difference up to age 55 was for males aged 5 to 9 years, the respective rates for the two countries being 37 for England and Wales and 15 for the United States, the latter rate being 59 per cent. lower than the rate for England and Wales. The least per cent. difference up to age 55 was for females aged 20 to 24, the respective rates for the two countries being 153 for England and Wales and 146 for the United States, the latter rate being 19 per cent. lower than the rate for England and Wales. Comparisons of the tuberculosis death rates for the two countries for ages above 55 show much lower rates in England and Wales than in this country, so much lower in fact that apparently the only explanation is a tendency in England and Wales to certify at the older ages bronchitis as the cause of death instead of tuberculosis.—*United States Public Health Service.*

APPROVAL OF LABORATORIES

An important activity of the Connecticut Bureau of Laboratories is the inspection of local laboratories for certification by the State Department of Health.

This privilege is granted the Department in Regulation 40 of the Sanitary Code, and Chapter 101, Section 2482, of the 1925 legislation to give certificates of approval to laboratories doing bacteriological examinations, and milk examinations respectively. Such laboratories must conform to certain standards, and so certificates are issued in the name of the person in charge, who must also show standards of training and technique.—*Bulletin of the Connecticut Department of Health.*

THE TRUDEAU MEDAL

The Trudeau Medal for 1926 of the National Tuberculosis Association was awarded at the annual meeting in Washington to Dr. Theobald Smith, Princeton, director of the Department of Animal Pathology of the Rockefeller Institute for Medical Research, who in 1896 first distinguished between the bovine and the human bacillus of tuberculosis.—*Science.*

**Case Records
of the
Massachusetts General Hospital**

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN
WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 12501

A CASE OF DYSPHAGIA

MEDICAL DEPARTMENT

An American conductor forty-seven years old entered May 14. His chief complaint was black stools.

Three years before admission he had a sudden attack of dizziness in the late afternoon lasting a few seconds, in which he had to lean against a pillar for support. For a year after this he was free from symptoms. Then without warning he had another brief attack, this time before breakfast. His legs gave out, and he was forced to sit down. Since this time he had had two or three attacks a week between 4 and 5 p. m. or before 6 a. m. (He got up at 3.45.) He had been treated by many physicians without relief. Since the first attack of dizziness there had been two or three days a month when he had impulses to strike the head of a man walking in front of him, to upset tables, or to jump off trains. He realized that these ideas were foolish, but could not prevent their occurring.

A year before admission he found that certain foods, particularly acid foods, or that swallowing large lumps gave him immediate severe pain in the midepigastrium. By January this pain was so severe that for the short time it lasted he feared for his life. Liquids and semi-solids gave him no trouble. With the onset of this a year ago he began to have gnawing pain in the same region three or four hours after eating, easily controlled by eating a cracker or a bit of candy. His physician put him on a diet, but after X-ray studies withdrew his diagnosis and cancelled his orders. He went to another physician, who took more plates and told the patient he had cardiospasm. In March a third physician sent him to a Boston hospital for study. An attempt to pass a stomach tube failed. An esophagoscope could not be passed into the stomach. He was not told the findings by X-ray.

Six days before admission he had a tooth extracted because of an abscessed root. The cavity continued to bleed until admission, requiring packing on two occasions. Five days ago on stooping over he felt something give way in his back. There was no pain at the time, but an hour or so later there was a sharp throbbing

ache. The pain was followed later by aching in both hips extending into the right leg. Four days ago milk of magnesia was given at 1 a. m. At 7 a. m. he had the first of a series of four or five black liquid stools said to contain blood.

On examination he showed some loss of weight. The skin and mucous membranes were moderately pale. There were several large ecchymoses on the left thigh and on the right knee and ankle. The lungs were clear. There was tenderness over the third left rib near the sternum. The apex impulse of the heart is not recorded. The left border of dullness was $11\frac{1}{2}$ centimeters from midsternum, one centimeter and a half outside the midclavicular line. The right border of dullness was 3 centimeters from midsternum. The supra cardiac dullness was 6 centimeters. The sounds were good. The action was regular. The radials were palpable, the brachials tortuous. The blood pressure was 128/80 to 100/60. There was slight tenderness to deep pressure in the epigastrium. Rectal examination showed reddish black feces on the examining finger; no masses or tenderness. The prostate was normal. The pupils were equal, regular, small and fixed (moria). The knee jerks were hyperactive. The fundi were negative except for tortuosity of the vessels.

The amount of urine was fifty ounces May 17, the only day when it was recorded, specific gravity 1.015 to 1.025, no albumin or sugar, occasional leucocytes at two of three examinations. Renal function 50%. The blood showed 7,300 to 19,900 leucocytes, 72 to 80% polynuclears, hemoglobin 50 to 30%, 2,190,000 to 1,600,000 reds, anisocytosis, slight poikilocytosis, slight achromia, punctate and diffuse basophilia, 1-4 normoblasts at both examinations, frequent macrocytes at the second, reticulated cells 15%. Wassermann negative. Non-protein nitrogen 57. Icterus index 8 May 17, approximately 5-8 May 18 (lipemia clouding serum?).

Orders. First week gastric régime.* No other fluids. May 14. Atropin one one-hundredth grain s. c. every three hours p. r. h. for pain. May 15. Aspirin ten grains. May 16 and 17. Morphia one-sixth grain. Soapsuds enema. May 18. Morphia one-sixth grain for three doses, one-eighth grain for one dose. Atropin one one-hundredth grain s. c. Shock enema.

The temperature was 97° to 101.5°, the pulse 85 to 125, the respiration 20 to 31.

The patient was seen in the Emergency Ward and appeared so ill that a complete physical examination was thought inadvisable. He did, however, show marked pallor, rapid heart, a soft systolic murmur and some tenderness in the epigastrium. He was sent to the ward and given only cracked ice and morphia, with two-hourly pulse and blood pressure. He was somewhat

*Milk and cream three ounces every hour from 7 a. m. to 7 p. m. (an ounce and a half of each, boiled). Water ad libitum.

nervous, so that he had to be moved to a more quiet part of the ward. At half past six in the morning of May 18 he was restless. At quarter past eight he showed signs of hemorrhage, sighing respiration, pulse 140 and blood pressure 90. Half an hour later donors were called and transfusion arranged for. A shock enema was given, and one-third of a grain of morphia. Before intravenous saline could be given he became pulseless and the heart sounds could not be heard. Intracardiac adrenalin was given and one tube of blood was injected without avail.

DISCUSSION

BY RICHARD C. CABOT, M.D.

NOTES ON THE HISTORY

We have two cerebral symptoms here, one vertigo and the other impulsive ideas. As they are so brief in both cases we cannot help wondering whether they have not some relation to circulation. I do not know of any example of mental symptoms of that kind having relation to circulation, but I see no reason why they should not.

If it were not for the mental symptoms—if they were mental symptoms—the dizziness in a man of his age would suggest trouble in one of his ears, that he was beginning to be deaf and that his vertigo would improve as he continued to grow more deaf. But in the presence of mental symptoms the vertigo is more probably due to their causes.

All of this so far seems to have no relation to black stools. When I first began to read I thought these attacks might be related to vertigo with faintness, as it so often goes with faintness. But he has had so many attacks that that does not seem possible.

The report from the other Boston hospital sounds as if he had an organic stricture in the lower end of his esophagus, which in a man of his age we should always fear to be cancer.

This is rather a complicated and difficult history. We have these early attacks of dizziness and mental symptoms of which we hear nothing later, and which I imagine have nothing to do with the picture. Then we have digestive symptoms with apparent obstruction of the esophagus, and then we have hemorrhages from the bowel as well as from a tooth cavity, which presumably however has no particular significance; also a pain extending into the hips and right leg of which I cannot at present make anything in particular. Of course the hemorrhage from his bowels and the obstruction (apparently in the esophagus) might perfectly well be due to cancer of the esophagus.

NOTES ON THE PHYSICAL EXAMINATION

Presumably these ecchymoses are due to the same thing that made him bleed so much after

the pulling of a tooth, that is, to something, very possibly a neoplasm, which has reduced his resistance and given with it that tendency to bleed that we call cachectic purpura.

There is very little that we can find wrong with the circulatory system, unless possibly some enlargement of the heart.

The physical examination has given us practically nothing except evidence of profound anemia. There is blood in the rectum, but that we knew before.

He has normal kidneys.

I have never heard of so high a percentage of reticulated cells. The normal average is under one. This is an enormous figure.

DIFFERENTIAL DIAGNOSIS

He died of hemorrhage of course, presumably intestinal or gastro-intestinal hemorrhage. The outstanding fact on physical examination is that extraordinarily low blood count,—the extraordinary degree of anemia with a hemoglobin certainly not notably low, with only slight achromia stated—in other words, a blood which on the figures given here could be pernicious anemia. But against that we have the fact of an apparent obstruction to his esophagus and of profuse hemorrhages such as do not at all commonly happen in pernicious anemia. Then the course of the disease is not like that. He has had no signs of ups and downs. I think that on the blood alone one could not decide, but on the whole aspect of the case one would say anemia secondary to the lesion that made the difficulty of getting the stomach tube into his stomach, and that seems to be cancer. I do not know any other lesion that will bleed so and cause obstruction at that point. Apparently no attempt was made at this hospital to put a stomach tube in, and one does not hear of difficulty in swallowing, which seems queer if they could not get a tube in. I do not know anything but a neoplasm that would bleed this way, and I do not see how it could be in the bowel without giving him more intestinal symptoms. Whether it is in the esophagus or a little lower down I do not know. It certainly sounds like the esophagus, and yet the difficulty is that in the latter part of his life nothing is said about difficulty in swallowing. The history says, "A year before admission he found that certain foods, particularly acid foods, or that swallowing large lumps, gave him immediate severe pain." But there has been none of that lately.

Big hemorrhages like this are much commoner from ulcer than they are from cancer. He has had pretty good ulcer symptoms at one time. Those pains controlled by eating a bit of cracker or candy sound like ulcer. But it is just after that that they could not enter his stomach, and so although we have something suggesting

ulcer it is on the whole less like that than like cancer.

Outside the gastro-intestinal tract I do not see any reason to expect important disease. The heart may be a little enlarged but nothing else. The brain symptoms have not been mentioned at all in the latter part of the discussion.

DR. RICHARDSON: Was there an X-ray?

DR. CABOT: There was no X-ray mentioned, and that is queer too, in four days' observation.

A PHYSICIAN: Would you consider aneurysm leading into the esophagus?

DR. CABOT: Yes, I think one should.

DR. LELAND S. MCKITTRICK: I think I remember this man. I think he was a patient of mine at the Deaconess Hospital. He did have X-rays there. They were essentially negative. They could not prove anything definite by X-ray. X-ray before I saw him showed cardio-spasm.

DR. CABOT: Do you remember anything about the difficulty of getting into his stomach?

DR. MCKITTRICK: I remember very well, because I tried to pass the stomach tube and could not get in. I also saw Dr. Greene try to pass the esophagoscope, and he could not get it through the cardiac opening.

DR. CABOT: Yet the barium went in all right. It is quite an extraordinary case. I think we are very likely to go wrong, but I cannot think of anything better than what I have said.

I have not dealt with the question of aneurysm. I have never known aneurysm to make obstruction of the esophagus so low down. All the aneurysms I have known obstructing the esophagus have obstructed it much higher up. And I should think that it ought to have shown tumor and pulsation either in the epigastrium or higher up with many more signs than we have here.

A PHYSICIAN: What about his ulcer later turning malignant?

DR. CABOT: We have seen so few of those here that we do not say so. In general the physicians in the country belong to two groups, the Mayos and the rest of us. On the whole the findings of McCarthy at the Mayo Clinic are not substantiated by other pathologists. Most of us believe that ulcers do not turn to cancers. Of course we could have a cancerous ulcer, but that is cancer, and not ulcer. The outstanding fact is that duodenal ulcer is commoner than ulcer in the stomach, and yet duodenal cancer is almost unknown.

DR. MCKITTRICK: Dr. Greene passed the esophagoscope perfectly well down to the stomach, but he could not get it *into* the stomach. He saw nothing. It was simply narrowed and fixed at the opening of the stomach and the instrument would not enter.

DR. CABOT: That makes us wonder about sources of pressure outside, such as aneurysm,

which has been suggested. But I do not think I can do any better than cancer at or below the cardia.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Bleeding gastric ulcer.

Hemorrhage.

Shock.

Operation, direct transfusion.

DR. RICHARD C. CABOT'S DIAGNOSIS

Carcinoma of the esophagus or just below it.

Secondary anemia (from hemorrhage).

Hypertrophy and dilatation of the heart?

ANATOMICAL DIAGNOSIS

1. Primary fatal lesion

Carcinoma of the stomach with metastases in the retroperitoneal glands.

2. Secondary or terminal lesions

Hemorrhage into the gastrointestinal tract.

Anemia.

Edema of the lungs.

3. Historical landmarks

Chronic pleuritis.

Slightly defective closure of the foramen ovale.

Hypertrophied and dilated heart.

DR. OSCAR RICHARDSON: The conditions in this case are fairly clear from the anatomical standpoint. The skin and mucous membranes were pale. In the left cubital space were brown-red spots, and in the right cubital space a short sutured wound. There was a good amount of subcutaneous fat. The man was well nourished, yet he had carcinoma of the stomach.

The peritoneal cavity and appendix were frankly negative. The esophagus was negative, the mucosa pale. The stomach was small, and at the junction of the esophagus and the stomach, beginning about in the region of the junction, the wall was thickened generally along and around the upper third of the stomach. The lower two-thirds was frankly negative. These walls were thickened up to one and a half centimeters or more and of course narrowed the cavity of the stomach markedly, so that coming down from the esophagus whatever instrument was used would probably hit into this mass of new-growth tissue. The new-growth tissue in the wall is of the diffuse type of carcinoma,—diffuse infiltration of small cells, which produces, when it involves the whole stomach, the so called leather-bottle stomach. Peculiarly it happens to be located in the upper third of the stomach.

The mucosal surface of the new growth was thrown up into a meshwork of thick folds with some erosion and they were coated with bloody,

mucous material. At no point was a definite localized ulceration found.

There were a few enlarged retroperitoneal glands and one or two along the aorta. These glands were about two centimeters across. They were a little grayish on section, and the microscope showed infiltration with cells like those in the new growth in the stomach wall.

In the small and large intestines a lot of bloody material was found. The mucosae were negative.

The lungs were pale, saturated with thin pale fluid, sitting in well enough with the general picture of anemia insofar as pallor is indicative of anemia.

The pericardium was negative. The heart was rather large—400 grams—but the myocardium valves and cavities were frankly negative. The aorta and great branches were negative except that in the abdominal portion there was a small area of arteriosclerosis. The coronaries were free and negative.

The liver, pancreas, gall-bladder, spleen, adrenals, and kidneys were frankly negative, as were the prostate, seminal vesicles and testes.

DR. CABOT: Did you examine the head?

DR. RICHARDSON: No.

DR. CABOT: Dr. Camp, is that the place where it is most difficult to catch a cancer of the stomach?

DR. JOHN D. CAMP: Yes. We are more likely to overlook a cancer of the cardia than one in any other place. But I should think that type would have been more obvious. Perhaps the stomach was not examined.

DR. CABOT: This is a very unusual type of cancer, isn't it?

DR. RICHARDSON: Yes, it is an unusual picture.

A PHYSICIAN: Did the hemorrhage seem to come oozing through the mucosal wall?

DR. RICHARDSON: The hemorrhage came from the new growth in the wall of the stomach. New growths often bleed.

CASE 12502

A CARDIAC CASE

MEDICAL DEPARTMENT

An unmarried Italian-American saleswoman thirty-nine years old entered October 28 for relief of shortness of breath.

For the past year and a half her activities had been limited by recurring attacks of shortness of breath on exertion. Five weeks before admission she took a vacation and took long walks in hilly country. The second week she began to have increased dyspnea and palpitation on slight exertion. One night her feet felt numb and very cold. A week before admission she returned to Boston because the dyspnea

and palpitation were so severe that she could scarcely walk across the room. The night of her arrival home on attempting to go upstairs rapidly she had cyanosis also. She now had edema of the ankles on exertion, disappearing overnight.

One sister died of "dropsy"; otherwise the family history was unimportant.

The patient had chorea at ten years. Six years before admission she had influenza. In general she had been well and strong until the present illness. For the past week she had had use of five pillows at night, had slight unproductive cough and hoarseness, some blowing tinnitus, some gas after eating, and her abdomen had increased in size. Some teeth were replaced by bridge work. Six months ago her catamenia became scanty and irregular. She had gained weight steadily during the past few years.

Clinical examination showed a very obese, orthopneic woman with slightly cyanotic mucous membranes and ears. The cheeks showed a purple flush. There was slight pyorrhea. The chest was barrel shaped. There were medium coarse râles at both bases posteriorly. The apex impulse of the heart was not located. The heart sounds were obscured by a very large breast. The sounds were of fair quality. As nearly as could be ascertained there was no enlargement to percussion. There was a questionable apical diastolic murmur. The pulses were small. The artery walls were normal. The blood pressure was 140/100. Examination of the abdomen was unsatisfactory. There was questionable fluid. Rectal examination showed external tabs. Vaginal examination could not be made because of hypertrophied labia majora. There was a slight mucopurulent discharge. The fingers were square ended but seemed to taper. Both legs showed small varices and mild pitting edema as far as the knees. The pupils, fundi and reflexes were normal.

There is no record of the urine. The renal function was 40 per cent. The blood showed 14,000 leucocytes, 78 per cent. polynuclears, hemoglobin 80 per cent., 5,380,000 reds, slight anisocytosis, no poikilocytosis, achromia or stippling, the slightest variation in staining reaction, platelets normal. Wassermann negative. Non-protein nitrogen 36 milligrams. Vital capacity 600 cubic centimeters (normally should be 4180).

X-ray showed the heart shadow considerably enlarged, triangular in shape. Marked prominence in the shadow of the auricles on both sides. There was also considerable increased density in the lung fields, most marked at the bases. "Changes in the lungs are probably of cardiac origin." A plate of the skull was negative.

The temperature was 99.4° to 100.5°, the pulse 97 to 112, the respiration 26 to 28.

October 29 a definite systolic murmur was

heard. No diastolic was made out. The pulmonary second sound was accentuated. There was marked cyanosis. The abdominal wall showed slight edema. The sacrum and lungs showed none. There was moisture at both bases.

The patient was very dyspneic and cyanotic from the time of admission. She slept at night with the aid of morphia, but was very restless and groaned with respiration. The morning of October 30 she gradually lapsed into coma. The cyanosis deepened. The respiration became Cheyne-Stokes and the pulse very weak. The blood pressure dropped below 100. Her hands became very cold. Caffein sodium salicylate was given without appreciable effect. In less than three hours she died.

DISCUSSION

BY RICHARD C. CABOT, M.D.

NOTES ON THE HISTORY

If we take this on the basis of the history before the physical examination we certainly have everything pointing in one direction,—towards a cardiac case. A middle-aged woman who has had chorea at ten, who has had abundance of cardiac symptoms and on the whole no other symptoms, no symptoms pointing to the kidney or brain or anywhere else. At that age and with this history of course the commonest type of heart trouble is the so-called rheumatic type hitting the mitral valve in most cases. So as we come to the physical examination we are looking especially for trouble at the mitral valve.

NOTES ON THE PHYSICAL EXAMINATION

This is the sort of examination which is often all we can get the first time we see a pretty sick patient. Certainly there ought to be more definite things to come out of that heart on more extensive examination. One should not be satisfied to go with only this examination.

The fingers were not clubbed.

Presumably there is nothing much wrong in the kidneys with that renal function.

She has essentially a normal blood.

This vital capacity is of course what we should expect with such a condition of the heart and lungs.

I dare say if there were an X-ray expert present he might tell us something important from this plate. It does not tell me anything. It might go with a mitral heart, but I should suppose it might go with one that was not, or even with an adherent pericardium.

DR. JAMES H. MEANS: I think they lay a good deal of stress on the bulge high on the left.

DR. CABOT: Yes, they say it means mitral, but I have seen it mean a lot of other things too. Of course here we are prejudiced in favor of mitral, so we should be glad of any such

support. It is interesting to know why they took a plate of the skull.

DR. MALLORY: On account of the obesity? It is fairly commonly done on the possibility of there being something in the hypophysis.

DR. CABOT: It does seem to me they had much to go on really.

DIFFERENTIAL DIAGNOSIS

Of the three common types of heart trouble we have no evidence whatever of a syphilitic lesion. She has a negative Wassermann, she has no evidence of an aortic leak, and I do not see why we should consider syphilitic aortitis any further. For the hypertensive type of trouble we have a rather high diastolic pressure, right on the dividing line between normal and abnormal, but that is all, and I do not see that we have enough evidence in this direction, especially as we have more evidence pointing in another direction. The remaining type then suggested by the history of chorea, by the age, the sex, and the duration of the troubles should make us say, I think, rheumatic heart trouble. That may involve the pericardium as well as the endocardium. I do not know any way in which one can ever be sure that adherent pericarditis is or is not present. We have no evidence that I see here. We have to leave it open as a perfectly valid possibility, but with nothing solid to support it.

If she has mitral disease the chances are nineteen out of twenty that this is mitral stenosis, even though we never got a presystolic or diastolic murmur. There are a good many things in the cardiac examination that were not told, for instance, the quality of the first sound, which often helps us out, and the question of the second sound at the apex, absence or diminution of which helps us toward a diagnosis of mitral stenosis. One of the striking things is that apparently there is no arrhythmia. It is unusual for a patient with this or any other type of heart trouble to die without arrhythmia.

DR. MALLORY: One point that I do not think the record brings out but which is of considerable importance in the case is the degree of obesity. She was absolutely mountainous. She must have weighed about 325 pounds, I think.

DR. CABOT: I do not know whether that has or ought to have any bearing upon the predictions we make about the post-mortem findings in the heart. We used to talk about "fatty heart," "fatty overgrowth of the heart," but I have no definite knowledge of its interference with the cardiac function, or of any way in which excess of fat around the heart can be diagnosed. So that this fact that Dr. Mallory has given me, while perhaps it ought to sharpen the focus of diagnosis, does not do so in my case. I still can say nothing better than mitral stenosis, with

rather unsatisfactory evidence pointing to it, but no particular evidence pointing to anything else. Did you see this patient, Dr. Means?

DR. MEANS: I saw only her necropsy. Don't you think the obesity is possibly what might be called a contributory cause of death? If she had not been so fat she might have survived this attack.

DR. CABOT: Yes. But when we see what terribly fat people do get around and for what long periods, I do not see how we can say that fat itself incapacitates a heart.

DR. MEANS: We know it shortens life expectancy, and with cardiac diseases this tendency is increased.

MISS PAINTER: Would you care to hear the X-ray diagnosis? The report said "enlarged and dilated heart."

DR. CABOT: I think even we could have said that. They did not commit themselves as to the question of a mitral lesion, which they sometimes do commit themselves on now.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Rheumatic heart disease.
Mitral stenosis.
Congestive heart failure.
Myocardial insufficiency.
Obesity.

DR. RICHARD C. CABOT'S DIAGNOSIS

Rheumatic heart disease, mitral stenosis.

ANATOMICAL DIAGNOSIS

1. Primary fatal lesion

Mitral stenosis.

2. Secondary or terminal lesions

Chronic passive congestion of all viscera.
Obesity.
Acute hemorrhagic pancreatitis.

3. Historical landmarks

Leiomyomata of the uterus.

DR. MALLORY: As I said, the woman was extraordinarily obese, and in addition to that she had a rachitic deformity of the thorax, so that her chest was less than two-thirds the size of a normal woman of her weight, although externally, on account of the amount of fat present, the upper half of her body looked enormous. That undoubtedly had a great influence on her vital capacity.

The heart did show mitral stenosis. It was moderately enlarged, weighed 480 grams. The right ventricle was considerably hypertrophied, the cavity very much dilated. The lesion in the mitral valve was not a severe one judged by ordinary standards. The total width of the valve was eight and a half centimeters. The cusps were somewhat thickened, and there was a definite ring formation. The chordae tendin-

ae were thickened and shortened. It was not at all a degree of mitral stenosis that I think would have proved fatal in an ordinary person. But I think the combination of her tremendous obesity, particularly marked below the diaphragm, with a great deal of retroperitoneal as well as omental fat, which must have given a considerably higher diaphragm than the average, plus this old rachitic chest and the tremendous work involved in carrying around that amount of flesh, probably accounted for death.

DR. CABOT: Was the accumulation of fat in and around the heart itself striking?

DR. MALLORY: It was comparatively slight. As to the question of fatty infiltration of the heart, we had one case this fall in which it was quite marked. In that one the wall of the right ventricle (this condition is always more marked in the right ventricle than in the left) was quite extraordinarily infiltrated with fat. There was perhaps half a millimeter of muscle tissue left, and about four millimeters of fat, with just occasionally strands of muscle running through it. That woman died very shortly after an operation for carcinoma of the bladder. Whether the condition of her heart had an influence on her failure to recover from the operation I don't know.

DR. CABOT: Was there any chronic passive congestion in that case?

DR. MALLORY: No. On the other hand, I do think that probably there was enough impairment of function so that she was a poor operative risk. This woman also had a slight degree of acute hemorrhagic pancreatitis, that is, a very severe congestion of the pancreas, and in a number of places the blood had escaped from the capillaries and there was slight necrosis of the alveolar cells but no necrosis of the fat tissue. It was not a marked enough lesion so that I believe it had very much influence in the case.

CASE 12503

A CASE OF SEVERE VOMITING

CHILDREN'S MEDICAL DEPARTMENT

A two-months-old boy of American parentage entered October 10. The complaints were a gastro-intestinal upset and refusal to take food.

The child was normally born, weighed $8\frac{1}{2}$ pounds at birth, and seemed normal in every way on breast feeding for two weeks. Then the mother developed sore and blistered breasts, and the child was put on a formula of cow's milk, water and dextrimaltose. On the second day of this he began to vomit a good deal and his bowels became constipated, moving only with suppositories. After two weeks the formula was changed to 16 ounces whole milk, ten ounces water, three tablespoonfuls dextrimaltose, boiled three minutes and given every three hours. Bar-

ley water was added later. On this he was better, but still vomited occasionally and was constipated. He had slight cough at times. He gained weight, but not enough, so that five days before admission an ounce of karo was added to the mixture. Two days before admission he vomited after a feeding, and again the next day. For three days he had refused his food, taking only one or two ounces. The day of admission he took twelve ounces and did not vomit. His bowels moved that day four times, dark green watery stools; before this the stools had been a soft light yellow. He had had no cod-liver oil or orange juice until the day of admission.

His family history was good. His mother had had no other pregnancies.

Clinical examination showed an underweight, undernourished, marantic infant, quite dehydrated and athreptic. The skin was dry and loose. The examination was otherwise normal.

The urine was turbid, specific gravity 1.005. Blood examination showed 16,000 leucocytes, 49 per cent. polynuclears, 48 per cent. lymphocytes, hemoglobin 90 per cent., reds 5,300,000, smear normal. Wassermann negative. Stool, fats much increased. Throat culture negative for Klebs-Loeffler bacilli.

X-ray showed the lung fields unusually large and bright, as the lungs were overdistended. The heart shadow was very small. There was absence of the neural arch of the seventh dorsal vertebra. No evidence of enlarged thymus was seen.

The temperature was 97.8° to 102°, with a terminal rise to 104.4°, the pulse 110 to 141, the respiration 24 to 40.

Orders. October 10. Breast milk three ounces every three hours. October 11. Whole lactic acid milk 8 ounces, karo one ounce, water eleven ounces; three and half ounces, six feedings. October 12. Whole lactic acid milk ten ounces, karo one and a half ounces, water nine ounces; feedings as before. October 13. Breast milk one ounce every three hours. Caffein sodium salicylate four grains every six hours for several days. No food for twenty-four hours. Hot water bottles to keep temperature up to 100°.

October 10 the baby was given 250 cubic centimeters of normal saline subcutaneously. October 13 he was in such poor condition that he was put on the dangerous list. Examination was entirely negative except for dehydration, very lax and sunken abdomen, and a small movable olive shaped tumor felt on deep palpation lying transversely just to the right of the midline and halfway between the umbilicus and the ensiform. After taking a little water gastric peristalsis was visible. Vomiting was copious but not projectile. 250 cubic centimeters of normal saline was given subcutaneously, and

150 cubic centimeters of ten per cent. glucose intravenously. A surgical consultant reported, "A desperate risk—but I believe we are justified in doing a laparotomy." The visiting physician palpated contracted intestine in several regions, but could not decide whether one of these was a tumor. He could see no peristalsis. The child was passing yellow stools in fair quantity.

The child's condition grew rapidly worse. He vomited everything taken during the day. Food was stopped at noon. During the afternoon he vomited brownish vomitus. That evening he died.

DISCUSSION

BY RENG T. HAMILTON, M.D.

The baby weighed seven pounds fifteen ounces.

On admission he seemed to be not dangerously ill for the first one or two days.

I examined the baby and felt that same tumor, but also two other tumors, and I thought possibly these tumors might be contracted intestines, intestines in a state of spastic contraction. I was not prepared to commit myself as to whether the tumor in the middle of the abdomen was a pyloric tumor or not. I could not see any peristalsis, probably because I had not given the baby any water to drink.

The history is one that is not uncommon in young infants. There seems to be a rather large number of infants who during the first three months of life do not thrive on any food other than woman's milk. If fed artificially from birth or if weaned too early these infants develop nutritional disturbances: vomiting, diarrhea or constipation, failure to gain or loss in weight. The history of the infant here under discussion seemed to indicate that this infant belonged to this group of cases. The baby was doing well on the breast; suddenly weaned at the age of two weeks it began to vomit and became constipated. The constipation was not of the type associated with obstructions in the digestive tract, the stools were soft yellow and not the dark, mucous stools of starvation. The vomiting was not steadily progressive and seems never to have been very severe.

Then, as often happens, an acute nutritional disturbance was superimposed on the chronic condition. The infant developed a diarrhea and refused its food. The condition grew worse, and the infant was brought into the hospital, whether this acute exacerbation was precipitated by an acute infection is hard to say.

On admission the infant presented the picture of atrepsia; a high red cell count and a high hemoglobin gave evidence of the presence of a dehydration. The appearance of the stools proved conclusively that food was passing

through the digestive tract without serious obstruction, and if further proof was needed it was given by the low specific gravity of the urine, showing that fluid was being absorbed.

When the infant was admitted we were confronted by a problem often encountered in this type of case: whether or not to treat the acute diarrhea by twelve to twenty-four hours starvation. It is a well known fact that acute diarrheas often respond well to starvation, but it is equally well known that infants with a long history of nutritional disturbance do not stand starvation well. As usual we had to strike a compromise, feeding the infant about half of its caloric needs. On this food the infant had frequent stools and rather frequent vomitings.

Three days after admission the condition became suddenly worse. The infant now presented the picture of acute intestinal intoxication, prostrated and extremely dehydrated. It was now decided that the severity of the symptoms made starvation necessary. Parenteral fluid had been given on admission and was now resumed. The fever may have been caused by a parenteral infection, or it may have been due to the dehydration.

At this point a finding was made that opened up the possibility of the condition not being one of an uncomplicated nutritional disturbance. A tumor was palpated in the abdomen and peristalsis was seen. At a subsequent examination contracted intestines were palpated in several parts of the abdomen, and it was felt that possibly the tumor first found might also be just a part of the intestines in a state of spastic contraction. The abdominal wall was very thin and the different organs in the abdomen were felt right under the fingers. Possibly the peristalsis that had been seen might be accounted for in the same way, by the thinness and lack of tonus of the abdominal wall.

It was decided that even if pyloric stenosis was present an operation was out of the question on account of the extremely poor general condition of the infant. A transfusion was advised, but before it could be given the infant died.

The two questions that arose at the infant's death were: first, should the infant have been starved immediately on admission? second, was there a pyloric stenosis present, and if so, what part did it play? The first question I should now, being familiar with the subsequent development of the case, be inclined to answer in the affirmative. It is quite possible that if the infant had been starved at once the development of an intoxication might have been prevented.

The second question, whether or not there was a pyloric stenosis present, I was inclined to answer in the negative. The vomiting had not been steadily progressive, and at no time had there been a complete stenosis, as evidenced by

the yellow or green stools. If, however, a pyloric stenosis was present, I felt that it had been of only secondary importance in the development of the symptoms. The infant had died, I felt, from an acute intestinal intoxication superimposed on a chronic nutritional disturbance, and this in turn was probably caused by the infant's inability to thrive on any kind of artificial food.

The necropsy showed that there was present in this case a mild form of pyloric stenosis. Knowing this, I believe that the rapidity with which the symptoms developed and the predominance of vomiting in the clinical picture were due to the stenosis. As the stenosis, however, never was complete, it cannot have been the direct cause of death.

A PHYSICIAN: Would this type of stenosis have been helped by atropin?

DR. HAMILTON: I think that quite possibly it might have been helped by atropin if atropin had been given at any early stage, long before the infant came to the hospital. The infant was then suffering from a mild form of vomiting, and we know there are many cases of that type who respond to atropin. There are also many who do not.

A PHYSICIAN: Was this a true stenosis?

DR. HAMILTON: It was a true pyloric stenosis of a mild form.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Chronic nutritional disturbance (marasmus).
Acute exacerbation of nutritional disturbance.

ANATOMICAL DIAGNOSIS

Pyloric stenosis.
Marasmus.

DR. MALLORY: I have not much to add except the findings in the stomach. The stomach was considerably dilated, the greater curvature extending down to the level of the umbilicus. The pylorus was firm, rather resilient. There was a very definitely thickened wall with a grayish, rather refractile layer of muscle tissue varying from two to four millimeters in thickness extending in a ring around the pylorus. Although the thickening was most marked at the pylorus it extended back over an interval of one and a half to two centimeters, gradually tapering out towards the fullness of the stomach. The gastric contents were somewhat coffee-colored and the mucosa was a deep purple.

The necropsy was limited to the abdomen, and there was not much else of importance. The tissues were very much dried out—definite evidence of dehydration. The intestines showed considerable prominence of the lymphoid structures, but no erosions or other abnormality of the mucous membranes.

DR. CABOT: Do you take it this was a congenital thing, Dr. Mallory?

DR. MALLORY: Yes, I think they always are.

DR. CABOT: And what is there to say as to its etiology?

DR. MALLORY: It is a recognized congenital abnormality, symptoms from which I believe usually do not develop for a period of weeks after birth, and there must be a gradual increase in the thickness of that muscular layer during the period to account for it. The obstruction was not complete in this case. It was thick enough to be a definite stenosis, but we could still force the tip of the little finger through it.

RESEARCH IN THE PUBLIC HEALTH FIELD

Recognizing the necessity and propriety of governmental research in the public health field, the Congress in the Act of August 14, 1912, provided that:

"The Public Health Service may study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage and the pollution either directly or indirectly of the navigable streams and lakes of the United States."

An earlier Act of Congress had established the Hygienic Laboratory in Washington, the scene of an important part of the research activities carried on by the Division of Scientific Research of the Public Health Service.

A topic is considered eligible for investigation by this division, provided it is of public health interest, and if funds and personnel are available, under the following circumstances:

1. The subject is of widespread significance and no adequate solution is at hand.
2. Other agencies are not studying the subject, or at least not from the standpoint of public health.
3. The subject threatens to become of widespread importance rendering anticipatory research advantageous.

The principal activities of the Division at present include:

Studies of a number of diseases of man, including cancer, clonorchiasis, encephalitis lethargica, goiter, influenza, leprosy, malaria, nutritional diseases, pneumonia, Rocky Mountain spotted fever, trachoma, tuberculosis, tularaemia and typhus fever; investigations on the subjects of administrative health practice, child hygiene, drug addiction, industrial hygiene and sanitation, mental health, milk, morbidity, oxidation reduction, stream pollution and salt-marsh mosquito control; and studies and inspections required for the regulation of interstate traffic in biologic products.—*The United States Daily*.

AN AID TO THE MEDICAL PRACTITIONER

Physicians treating venereal disease cases have frequently expressed a need for a pamphlet containing instructions and advice to be given to venereal disease patients. Due to the nature of these diseases and the regimen which proper treatment requires, the need for such a publication has long been apparent. Some time ago the United States Public Health Service prepared a pamphlet known as "Important Confidential Information" expressly for this purpose. The leaflet is in two parts, one dealing with gonorrhea and the other with syphilis. Advice is given

among other points on the following: Importance of continuing treatment until cured, proper diet while under treatment, proper care to prevent the spread of the disease, the futility and danger of quacks and self treatment, sex conduct and marriage.

Many physicians have found this publication a valuable aid in securing the coöperation of the patient while under treatment and also as an aid in holding the patient until cured or rendered non-infectious. Copies of this publication are available from most State Departments of Health or they may be secured by writing to the United States Public Health Service, Washington, D. C.—*United States Public Health Service*.

AUTOMOBILE FATALITIES

The larger cities naturally show the greatest numbers of fatalities. The following statement ranks 33 of the cities according to the mortality rate per 100,000 estimated population due to accidents that occurred within the city limits for the first 36 weeks of this year. Probably this is the fairest way of ranking the cities as regards automobile fatalities. Kansas City, Kans., with an estimated population of 117,000, ranks first with one fatality and a death rate of 1.2; Indianapolis ranks thirty-third, with 59 fatalities and a death rate of 23.3.

CITIES AND ANNUAL RATES PER 100,000 ESTIMATED POPULATION

Kansas City, Kans.	1.2	Nashville, Tenn.	13.7
Grand Rapids, Mich.	4.6	Syracuse, N. Y.	14.2
Trenton, N. J.	7.6	Washington, D. C.	14.3
Fall River, Mass.	7.7	Camden, N. J.	15.5
Paterson, N. J.	8.1	New York City	16.2
Jersey City, N. J.	9.1	Springfield, Mass.	17.0
Norfolk, Va.	10.0	New Haven, Conn.	17.5
Minneapolis, Minn.	10.0	Oakland, Calif.	17.8
El Paso, Texas	10.6	Kansas City, Mo.	17.8
Richmond, Va.	10.7	San Francisco, Calif.	17.9
Lynn, Mass.	11.1	St. Louis, Mo.	19.5
Fort Worth, Texas	11.8	Chicago, Ill.	20.4
Albany, N. Y.	12.2	Dallas, Texas	21.0
Denver, Colo.	12.7	San Diego, Calif.	22.4
Baltimore, Md.	12.7	Duluth, Minn.	23.1
Boston, Mass.	12.9	Indianapolis, Ind.	23.3
Birmingham, Ala.	13.0		

—Department of Commerce.

POSTAL LIFE IS WARNED

COUNSEL TAYLOR, INSURANCE DEPARTMENT, WARNS COMPANY PHYSICIANS MAY NOT LEGALLY EXAMINE PROSPECTS IN THIS STATE

President W. R. Malone of the Postal Life Insurance Company of New York has been sent a letter of warning by Counsel H. J. Taylor of the Insurance Department of Massachusetts to the effect that any physician in Massachusetts examining a prospect for life insurance in the Postal Life violates the insurance law of this Commonwealth and is liable to a fine of \$100 to \$500.—*The Standard*.

DAMAGES AWARDED BECAUSE OF POLLUTED CITY WATER

Polluted city water has enabled a typhoid patient to obtain damages from the city of Albany for permanent injury to his health. A \$3,000 verdict was awarded on the ground that the city contracts with each citizen to furnish unpolluted water and had failed to warn the people that such pollution existed. Thirteen of the 200 cases that occurred in the same typhoid outbreak filed notice of suit within the required period and may also bring suit. If the decision is upheld by the higher court where the city intends to carry it, the case will establish an important precedent.—*Science*.

THE BOSTON Medical and Surgical Journal

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VOLUNTARY HEALTH WORK

For a number of years the leaders in the Medical profession have directed public attention to preventive medicine. In no branch has this born fruit as fully as it has in the prevention of infant mortality. This single factor is the chief cause of the prolongation of life which has occurred within the last generation.

It is natural then that the public should be impressed by what has been done and should seek still further to advance child welfare. It is natural that this should be one of the aims of philanthropic organizations. In view of the emphasis which has been placed upon the value of periodic health examinations, the obvious move is the establishment of child hygiene clinics where mothers may take their children for advice as to how to keep them well and strong. Many parents have seen the benefits which their own children have derived from the constant supervision of that general practitioner who is devoting particular attention to periodic health examination but who is called a pediatrician because he confines his work to children.

There is no question regarding the benefits of child hygiene clinics in our larger communi-

ties. The public feel that similar good can be done also in smaller communities. Physicians have told them of the good that can be done by periodic examinations. They have themselves observed it. Those who can afford it secure these examinations for their children and do what they think best to secure it for all children.

There are various ways in which physicians in the smaller communities may meet the demand. Each physician may establish his own clinic day on which he may see patients in groups at reduced fees for his poorer patients. The physicians of the community may pool their interests and see the poorer patients at central clinics held in a hospital or some community centre, each taking his turn of service; or the physicians may delegate the work to one or more of their number particularly interested in children.

These three courses are open. There are no others. The public have absolutely no interest in the differences of opinion among physicians. They understand and will in general abide by the golden rule. But until physicians individually take up the work of periodic health examinations of children, the public will take steps to have clinics established. The ideal would be to have all families supervised by their individual physicians. Physicians must do this work or inevitably the work will go to others who can and will do it. There have been such radical changes in medicine in recent years that it is useless to deny the need of better supervision of child welfare. Physicians must in every community, large or small, assume an active leadership.

THE INDEPENDENCE OF DOCTORS INVADED

THE United States Supreme Court by a five to four decision has upheld the Federal law which restricts the prescribing of more than one pint of whiskey for any one case during a period of ten days.

In explanation Justice Brandeis based his attitude on the difference of opinion among physicians relating to the therapeutic value of alcohol and also on the belief that prescriptions are issued in order to provide whiskey for beverage purposes.

We agree with Justice Brandeis that there is evidence demonstrating both of his assertions. We dissent from his logic in applying this evidence to the extent of denying to honest physicians the right to exercise individual judgment. While it is probable that the use of alcohol in treating the sick has been materially modified it is well known that some intelligent and honest doctors believe in the therapeutic value of this agent under certain circumstances

and this decision if followed to its logical conclusion would pave the way for the regulation of the dosage of other drugs by the government. This decision will of course please those who are seeking to discourage the use of alcohol either as a beverage or medicine.

We are not taking sides with the antis or pros, that is outside our province, but we do believe that the present laws both as regards alcohol and narcotics are unduly cumbersome and complicated. If the Supreme Court can only secure a bare majority in a matter of importance, those who believe that minorities are not always wrong will chafe under the purpose of the government to invade the field of medical practice.

We have long felt that many laws are complicated beyond reason. Most registration laws are, in theory, for the protection of the people but most of such statutes impose a tax on the righteous in order to secure revenue which will add to the resources of the government in carrying out the provisions of such acts. So far as alcohol is concerned we believe that the simple setting forth in a statute that no one may use any of the forms of alcohol except for therapeutic purposes ought to be sufficient and the government should meet the cost of enforcement through general taxation or general revenue.

To suspect a law abiding citizen of being allied with criminals without some evidence seems unjust. The interpretation of the law fetters individual judgment apparently because the government has no confidence in the honesty of doctors as a class.

We wish that every doctor could devote time to a careful perusal of the text of the majority opinions of the Supreme Court and compare it with the opinion submitted by Justice Sutherland, who represented the minority. While confessing to very little knowledge of law, we could not escape the conclusion that Justice Sutherland's interpretation of the law was a better constructed and more logical statement. One part of his argument which we submit seems most reasonable: "To me the answer seems plain. If Congress cannot altogether prohibit the prescription for medicinal use, it cannot limit the prescription to an inadequate quantity, for, obviously, in that case, to the extent of the inadequacy, the prohibition is as complete, and the usurpation of power as clear, as though the prohibition were unqualified. If the power exists to limit the quantity to a pint in 10 days, it exists to limit the quantity to a tablespoonful or a teaspoonful or a few drops during the same or any other arbitrary period of time, with the result in substance and effect that the definite limitation of the prohibitory power by the words 'for beverage purposes' vanishes altogether."

He further states "By the legislation now under review, the authority of Congress is so ex-

ercised that the reserve power of the States to control the practice of medicine is directly invaded, to the illegitimate end that the prescription and use of liquors for medicinal purposes is prohibited."

WOODEN SHINGLE ROOFS A MENACE TO LIFE

SINCE fires play an important place in mortality statistics the elimination of shingle roofs is a factor in preventing injury and death.

Although undoubtedly advocated first as an economic measure the substitution of non-inflammable roof coverings for wooden shingles has its place in preventive medicine. There are now 169 cities in this country which prohibit the use of wooden shingles within their corporate limits.

In Massachusetts, Cambridge, Chelsea, Lynn, Malden, Northbridge, Wollaston, and Woburn have been added to the list of those which prohibit the use of this form of roof covering.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

MORSE, JOHN LOVETT, A.B.; M.D. Harvard Medical School 1891; Professor of Pediatrics Emeritus Harvard Medical School, Consulting Physician at Children's Hospital, Infants' Hospital and Floating Hospital, Boston, Member of American Pediatric Society, New England Pediatric Society, Association of American Physicians, Boston Obstetrical Society, and Newton Medical Club. His subject is "Certified Milk." Page 1143. Address: 483 Beacon Street, Boston.

MCCLELLAN, ROBERT N., B.S.; Research Assistant at Massachusetts Institute of Technology. His subject is "The Laboratory Control of Walker-Gordon Certified Milk." Page 1145. Address: Washington Avenue, Needham, Mass.

WHITE, PAUL D., A.B.; M.D. Harvard Medical School 1911; Associate Physician and Chief of the Cardiac Clinic Massachusetts General Hospital, Instructor in Medicine Harvard Medical School, Member American Heart Association and New England Heart Association. His subject is "A Note on the Differentiation of the Diastolic Murmurs of Aortic Regurgitation and of Mitral Stenosis." Page 1146. Address: Massachusetts General Hospital, Boston.

LEVINE, SAMUEL A., A.B.; M.D. Harvard Medical School 1914. Instructor in Medicine Harvard Medical School, Associate in Medicine Peter Bent Brigham Hospital, Member of Association of American Physicians and American Society for Clinical Investigation. His subject is "The Treatment of the Attacks of Syncope Occurring in Adams-Stokes Disease." Page

1147. Address: 270 Commonwealth Avenue, Boston.

CORIAT, ISADOR H., M.D. Tufts College Medical School 1900. Formerly Assistant Physician Worcester State Hospital, formerly First Assistant Physician for Disease of the Nervous System Boston City Hospital, Ex-President American Psycho Analytic Association, Member of the American Psychiatric Association, New England Society of Psychiatry, Massachusetts Psychiatric Society and International Psycho Analytic Association. His subject is "Progress in Psychiatry." Page 1149. Address: 416 Marlboro Street, Boston.

MISCELLANY

CHILD DELINQUENCY AND THE HOME

IN an address before the State Conference of Charities and Corrections in Buffalo, November 17, 1926, Dr. Ira S. Wile, psychiatrist at Mount Sinai Hospital, New York City, asserted that society is largely to blame for wrong doing of children and further that the lack of character building in the home may also be laid of society. He thinks that reforms may be promoted by the development of teaching courses in parenthood. Children are not responsible for present day social conditions which are in a transitional state, due to the emotional stimulus of a child's environment more than to the intellectual capacity of the variant.

He combats the theory that heredity is the greater factor in the delinquency of youth and family records should not be regarded as adequate explanation of juvenile character and that there is a criminal class biologically.

The whole argument is intended to convince the public that the changed condition of the home is more responsible for delinquency and crime than inherited tendencies and that the especial need of the day with respect to the psychiatry of youth in the prevention of the burden of crime is the reconstruction of home life.

This, however, does not apply to any class for behavior problems are as common among the rich as well as the poor. Of course the school and the church must be important factors in raising the standards of the home. Wherever the home makers exhibit martial conflict, anger, brutality, disregard of law, and lack of faith in children, the effect of such examples must have a great effect on the child.

In this field as in many others *prevention* must be brought about by those with sufficient vision who happen to be in a position to give expert advice. The psychic view often is brought into the problem too late, just as the surgeon sees many cancer cases too late. Prob-

ably the family physician knows the conditions as early as any one but he may be inclined to think that is the absence of a recognizable pathology it is none of his business. May we not enlarge our conception of preventive medicine to advantage?

TUBERCULOSIS AND TRACHOMA CHIEF DISEASES MET WITH IN WORK OF INDIAN MEDICAL SERVICE

IN twenty-four States, the Government of the United States is bound by treaty obligations in some instances and by general guardianship obligations in others to provide medical care and attention for the physical well being of approximately 200,000 Indians who, while citizens of the United States, are nevertheless wards of the Government.

Not all of the Indians in the United States come within the scope of this arrangement. The Indians in New York and South Carolina, the Croatan Indians in North Carolina, and scattered groups in other States are not under these provisions of the Federal Government. Nor are the Indians of Alaska, although these do receive medical care from the Federal Government through the Bureau of Education.

The medical personnel under the Indian Medical Service consists of 120 full-time physicians, 64 contract physicians, 102 nurses in hospitals, 11 public health nurses who give visiting nurse service, and 37 field matrons. These field matrons are women, animated by a missionary zeal to improve conditions of life among the Indians; in addition to giving such medical service as their training enables them to give, they teach various domestic accomplishments such as cooking, and domestic science. Most of the nurses are graduates of nurses schools.

Tuberculosis and trachoma are the outstanding diseases among the Indians which the Indian Medical Service is striving to eradicate.

From an administrative standpoint the Indian Medical Service operates through four districts with headquarters at Minneapolis; Pendleton, Ore.; Albuquerque, N. Mex., and Shawnee, Okla. A coöperative arrangement has been made with the Public Health Service whereby the directors in the six districts into which the Public Health Service divides the country will do the work of the Medical Service Directors in those areas near the various district headquarters of the Public Health Service.

The work of the Indian Medical Service centers in the office of the Chief Medical Director who reports to the Commissioner of Indian Affairs. The Chief Medical Director is assisted by an Epidemiologist and a special Physician at large. The Epidemiologist has charge of epidemic control, investigates suspected contamination, promotes vaccination, and immunizing, in-

stalls sanitary systems, and gives advice concerning the prevention and control of disease. The Physician at Large is an eye, ear, nose, throat, and lung specialist who operates as directed by the Chief Medical Director to meet special emergencies.

For the fiscal year 1926 the cost of the Indian Medical Service was between \$1,110,000 and \$1,200,000. Of this amount, \$756,000 was provided by direct appropriation while the remainder came from various tribal funds held in trust by the government and expended under authority of specific acts of Congress. As the tribal funds gradually become exhausted it is necessary to meet the shortages by direct appropriations.—*The United States Daily*.

THE CHRISTMAS SEAL SALE

REPORTS received by the Massachusetts Tuberculosis League on the 1926 Christmas Seal Sale from Norfolk, Northern Worcester, Southern Worcester, Middlesex, and Plymouth Counties indicate that the sale of Seals will exceed those of previous years. In 1925 the Seal Sale in Massachusetts reached a record amount of \$229,862 which was \$8000 more than the previous year. The National Tuberculosis Association has fixed a quota of \$250,800 for the Commonwealth as the objective for 1926. In 1925 throughout the Nation \$4,904,000 was raised through the Christmas Seal Sale. This year the objective of the United States is \$5,000,000.

Despite the decrease in tuberculosis in recent years it has been found that a special effort must be made to stamp out the disease among wage earners. The working people of the nation constitute the largest class of persons afflicted with the disease. Therefore, more intensive work is required on the part of physicians and nurses to hospitalize those found to have the disease as well as to protect the co-workers in industry from infection. Additional nurses and health workers are required by the tuberculosis associations to meet the increased local demands and to secure the best possible results from the State's Ten Year Program for underweight children.

The twenty affiliated organizations of the League that carry on summer health camps for under-nourished children are planning extensions of their camps to care for larger numbers of children in the summer of 1927.

A PROFESSOR OF PSYCHIATRIC NURSING

MISS EFFIE J. TAYLOR, R.N., B.S., a member of the faculty of Yale School of Nursing, has been appointed Professor of Psychiatric Nursing. This is supposed to be the first and only professorship of this kind.

The Yale School of Nursing was established in 1923 by gift from the Rockefeller foundation.

Miss Taylor was director of the Army School of Nursing at Camp Meade during the World War. She has had an extensive experience in the faculties of nursing schools.

Three graduates in the class of 1926 have entered the field of psychiatric nursing.

FOLLOW UP WORK OF THE BOSTON TUBERCULOSIS ASSOCIATION

MISS ALICE HASKINS, the new Follow-up Worker of the Boston Tuberculosis Association, is now caring for 300 cases in the City of Boston. Miss Haskins is a graduate of St. Luke's Hospital, New Bedford, and the School of Public Health Nursing at Simmons College. She was formerly connected with the Community Health Association.

Miss Haskins has found that out of 161 children who stayed at Prendergast Preventorium for three months or longer, 155 gained in weight. After discharge, one hundred and forty-one of these children are regularly examined by a doctor. The general condition of these discharged Prendergast children is very good. At the present time there are 21 girls at the Camp all of whom will remain there during the winter months. During the past summer 150 boys and girls were cared for. 110 was the largest number of children in attendance at the Preventorium Summer Camp at one time. This work is entirely financed by the sale of Christmas Seals.

Up to date the Boston Tuberculosis Association has received an unusually large number of letters from prominent Boston business houses stating their interest in the work and their willingness to help through buying Christmas Seals.

THE MIDWIFE

DR. MARY RIGGS NOBLE of Harrisburg, Pennsylvania, in a paper published in *The Atlantic Medical Journal*, concludes as follows:

"Finally, it may be said that the present indications are that unless our immigration laws change and a large influx of foreigners occurs, the midwives will gradually disappear. The majority of them now are elderly women who will soon die off. Few new licenses are being granted. Young women are not taking the places of the old ones. The new generation of foreigners are unlikely to want to be under the care of a midwife. Thus automatically 'elimination' of the entire group may not be far distant."

SQUIRREL HEAD EXAMINED FOR RABIES

ON November 26 the Laboratories received the head of a squirrel for examination for rabies. No Negri bodies were found in the specimen but the animal was reported as acting

queerly and it had bitten a child. So far as any of the present laboratory workers are aware, this is the first time the brain of a squirrel has been examined for rabies infection in Connecticut.—*Bulletin of the Connecticut Department of Health.*

THE MODERN HEALTH CRUSADE— MASSACHUSETTS

NINETY-SIX thousand children have been enrolled by the Massachusetts Tuberculosis League and its affiliated organizations in the Modern Health Crusade. The Crusade is conducted throughout the nation under the auspices of the National Tuberculosis Association. The children are required to perform health chores, such as, washing hands before each meal, cleaning teeth at morning and night, drinking an abundance of milk, playing in the open air, taking frequent baths, and eating only wholesome food and avoiding candy and sweets so far as is humanly possible.

Miss Anna W. Johnson, Educational Director of the Massachusetts Tuberculosis League, said regarding the work of the Crusade, "This device for teaching children health habits has been successful because it is based on the age-old educational principle of 'learning by doing.' The children record at the end of each day the performance of the health chores on a card provided for the purpose. Teachers in many parts of Massachusetts report that the Crusade has been not only beneficial in improving the health of the children but also an aid to discipline. One teacher recently reported that out of a class of 43, at the end of the first five weeks of the Crusade 34 pupils had gained in weight, 31 are eating meals consisting of all vegetables, 36 reported brushing teeth regularly night and morning, 38 drink milk daily although 14 never drank milk before."

The Crusade work is one of the activities of the anti-tuberculosis associations supported by the annual sale of Christmas Seals. The 19th Annual Christmas Seal Sale, now in progress, from early indications is expected to be the largest ever conducted in the Commonwealth.

STATE AIDED HOSPITALS— PENNSYLVANIA

The Pennsylvania Department of Welfare has just issued Bulletin No. 25, "State Aided

Hospitals in Pennsylvania," a survey of hospital finances, resources, extent of service and the nursing situation made by Emil Frankel, Statistician.

It is believed that never before have comparable figures for so large a group of hospitals been brought together, and that this bulletin will give the hospital executive and all those interested in hospital management in Pennsylvania and elsewhere accurate data on hospital costs and service.

The total receipts reported by 149 State-aided hospitals during the fiscal year 1924 were \$15,572,393. The patients' contributions were \$10,086,465; local aid (donations, proceeds of fairs, corporation subsidies, city, county and poor district appropriations, etc.) amounted to \$1,348,168; the receipts from endowment earnings, rents and income from funds were \$825,618; the State's contribution was \$2,171,623; and \$1,140,517 from miscellaneous sources.

For every day of treatment the patients contributed \$2.73; local aid 36 cents; endowment earnings 22 cents. The State's contribution was 59 cents.

The total cost of maintenance of 149 State-aided hospitals reached \$15,327,181 during the fiscal year 1924. Distributing the total among the eight major hospital departments, they showed that \$6,132,982 went for household expenditures; \$4,338,842 was the cost of professional care of patients; the operation of plant cost \$1,841,004; maintenance (repair and upkeep) required \$1,229,354; the administration expenses amounted to \$1,124,499; fixed charges totalled \$411,357; out-patients cost \$155,929 and social service \$93,211.

The daily per capita cost amounted to \$4.14. Of this per capita cost, household expenditures consumed \$1.66; professional care of patients \$1.17; operation of plant 50 cents; maintenance (repair and upkeep) 33 cents; the administration 30 cents; fixed charges 11 cents; out-patients 4 cents; and social service 3 cents.

This study of the 149 State-aided hospitals indicates that with \$15,822 beds for patients available they cared for 285,402 patients and rendered 3,701,433 days of treatment. Of these days 1,229,655 were accepted as free days by the Department of Welfare or 33.2 per cent. Pennsylvania with a population of 8.2 per cent of the total United States population counted 13.2 per cent part pay and 19.5 per cent free hospital days rendered by all hospitals in the United States.

The average use of hospital beds is 63.5 per cent; the average use per bed is 18 patients per year. The average duration of treatment per patient is 13 days.

This study shows that more than one-hun-

dred million dollars are invested in hospital property in Pennsylvania. Sixty-nine of the 149 State-aided hospitals report total endowments of \$13,778,049, or at the rate of \$1,559 per bed for patient. Fifteen hospitals out of the 149 report 56 per cent of the total endowments.

"Pennsylvania's great hospital charity has to an unusual degree provided for the extension of hospital service into the small town and rural community," declares Dr. Ellen C. Potter, Secretary of Welfare, in her Introduction to this bulletin. She maintains, however, that the diversion of so large a sum during the past century into private charitable undertakings has resulted in serious handicaps in the State's own activities in the care of the mentally ill, mental defective, the juvenile delinquent and the criminal.

Dr. Potter believes that the trustees of State-aided institutions, as citizens of the Commonwealth, have laid upon them the serious responsibility of diminishing the need for State assistance to their hospitals by cultivating the sources of local support and by establishing business principles and sound social practice in their administration.—*Commonwealth of Pennsylvania, Department of Welfare.*

THE BRITISH ADDICT AND HIS PHYSICIAN

THE Ministry of Health of Great Britain, in September, 1924, appointed a special committee to consider and advise as to the circumstances in which the supply of narcotic drugs to persons suffering from addiction may be regarded as medically advisable.

The committee was composed of eight prominent physicians, their chairman being Sir Humphry D. Rolleston, president of the Royal College of Physicians and Surgeons. The report which this committee has now rendered, January, 1926, after long and searching inquiry, will be recognized as one of the most significant contributions yet made on the question.

The importance of hospital treatment is emphasized by the committee, but they find that there are numerous drug users for whom no hospital accommodations exist, or to whom the expense is prohibitive, and they find that there are numerous users of drugs in all walks of life who are "capable of living fairly normal and useful lives as long as they take a certain non-progressive quantity, usually small, but who cease to be able to do so when the regular allowance is withdrawn." (Page 32).

They dismiss the proposition that addicts should be registered, as "impairing the confidential character of the relation between doctor and patient." (Par. 81).

"It is clear," they say, "that there must be a considerable number of persons who cannot be adequately treated in institutions and whom it is impossible completely to deprive of the drug which is necessary to them for no other reason than the relief of conditions due to their addiction." (Par. 44).

"This class of patients includes those in whom complete withdrawal produces symptoms which cannot be treated satisfactorily in private practice, and those who are capable of leading fairly normal and useful lives when thus supplied." (Par. 47) * * * "It may become justifiable in certain cases to order regularly the minimum dose which has been found necessary, either to avoid serious symptoms or to keep the patient in a condition in which he can live a useful life." (Par. 49).

On nearly every page of the report their conclusion is reiterated that it is possible for addicted persons "to lead a useful and relatively normal life when a certain minimum dose is regularly administered but they become incapable of this when the drug is entirely discontinued."

The board suggests but few restrictions or regulations on doctors. *Northwest Medicine*, for September, in an extended editorial says, "this report expressing the deliberate judgment of one of the most eminent bodies in the world, is a vindication of those American physicians who have dared to assert their prerogatives in the practice of medicine. Why should a bureau of non-medical men have the authority to regulate and restrict the treatment of diseased individuals regardless of the opinions of men educated in the study and treatment of such conditions?"

Other expressions of the American medical press will be awaited with interest.—*The Bulletin of The White Cross.*

THE POWER OF STATISTICS

It is the aim of every health officer in Connecticut to so lower the death rate of his community that it falls below or compares favorably with that of the state as a whole. In fact, if he is forward-looking he appreciates the fact that the lower the death rate in his own community the lower will the state death rate be. Month by month through published statistics, the health tendencies of each part of the state are revealed and one interested in general progress along health lines is able to make comparison not only with each part of the state, but with previous months and years.

Health statistics thus published keep people well informed. Such figures if used to arouse public opinion may well result in the adoption of measures which will guard the people against disease, and promote general health. A united

front against disease, and ignorance of disease through public health instruction is bound to bring tangible results.

A study of conditions in Connecticut from a statistical point of view shows that in those towns where there is no child hygiene work or activities carried out in regard to maternal and infant care, it is more difficult for a child to survive than in cities where there are organizations for carrying out child hygiene and nursing work. A study of the towns for instance in Connecticut where there are no public health nurses shows that 8.5 per cent of the children die before they are one year old, compared with 7.2 per cent of infants that die before they are one year old in those towns where there are public health nursing and activities in connection with child hygiene work. In other words, in those communities that do not carry out health work to any great extent, there is an infant mortality rate of 8.5 per cent which is 15 per cent higher than the rate in the communities that are doing active public health work.

In brief, this statistical survey indicates that it is more difficult for children to survive in the country than in the city, and that the country and rural districts of the state need more extensive public health work than they have been receiving.—*Excerpts from the Bulletin of the Connecticut State Department of Health.*

CARE BOTH IN HOSPITALS AND HOMES IS GIVEN TO EX-SOLDIERS BY SPECIAL MEDICAL SERVICE

THE United States Veterans' Bureau is one of the Nation's heritages from the World War; it is that agency through which the country discharges its obligation to the nearly four and one-half million men and women who made up the various components of the armed forces during that conflict.

After the entry of the United States into the World War the basic War Risk Insurance Act of September 2, 1914, was amended October 6, 1917, to provide insurance for the armed forces, allowances for their dependents, disability compensation for those injured, and death compensation for the surviving dependents of those dying as a result of military service. On June 27, 1918, the Congress passed a separate Act providing for vocational rehabilitation of disabled veterans discharged from military service.

The separate administration of this latter Act gave rise to two independently operated agencies for veterans' relief, and immediate necessity further arose for the creation of a third organization, since neither of the two agencies had a medical corps. This exigency was met by recruiting the reserve corps of the United States Public Health Service, a bureau of the Treasury Department, and assigning these reserve

medical officers to duty with the two agencies. The United States Public Health Service also organized dispensaries in various districts of the country, providing out-patient treatment and physical examinations, and established hospital facilities by lease or purchase of civilian hospitals, by transfer of cantonment hospitals, and by new construction through Congressional appropriations.

Up to August 9, 1921, the War Risk Insurance Bureau continued to administer disability compensation and insurance, the Federal Board for Vocational Education to provide training, and the United States Public Health Service to furnish medical care and treatment for veterans. On that date the Congress passed the Act creating the United States Veterans' Bureau, the Director of which was authorized to take over, consolidate, and administer these various agencies of veterans' relief.

The Medical Service is headed by a Medical Director, reporting to the Director of the Bureau.

There are three administrative divisions: General Medical and Surgical, Tuberculosis, and Neuropsychiatric. The chiefs of these divisions pass upon questions of construction, maintenance, and repair of the Bureau's hospitals; upon the supplying of personnel and equipment for them; upon allocation of available beds in hospitals to the regional offices of the Bureau; upon the control of hospital admissions and discharges; and upon contracts for civilian hospital facilities. There is also maintained a general control and direction of the medical activities in the regional offices, suboffices, and medical treatment stations of the Bureau.

Besides these three divisions, the Medical Service in the Central Office is organized into these sub-divisions: Dental, Prosthetics, which authorizes the furnishing of orthopedic and prosthetic appliances through field stations, and supervises the activities and output of the Bureau's own orthopedic workshops; Business Management, which directly handles the procurement, storing, and issuance of all commodities, except medical supplies, for hospitals, and is concerned with the operation and upkeep of hospital utilities; Occupational Therapy and Physiotherapy; and Insular and Foreign, which handles the furnishing of medical care and treatment for the Bureau's beneficiaries in insular and territorial possessions of the United States and in foreign countries, and also supplies medical relief to allied ex-service men resident in the United States or its possessions.

The central office organization of the Medical Service also includes separate sections maintaining supervision of field activities in nursing, dietetics, and social work, respectively; and a medical research section, which directs field re-

search, and standardizes clinical and laboratory work in the Bureau's hospitals and field dispensaries. The results of such medical research and reports of clinical studies by the medical staffs in the Bureau's hospitals and field offices appear in the *Bulletin*, a monthly medical journal edited in central office.

The Medical Council, a group of nationally prominent specialists in medicine and public health, hospital and dispensary management, medical research and statistics, which was first organized in 1924, acts in an advisory capacity to the Director of the Bureau and the Medical Director.

The field work of the Medical Service is carried on through 4 regional offices and 8 suboffices in the continental limits of the United States; and 3 suboffices located in Manila, Philippine Islands, Honolulu, Hawaii, and San Juan, Porto Rico, respectively; and 17 medical treatment stations, located at points removed from accessible facilities in the dispensaries of these regional offices and suboffices.

The Bureau operates 51 of its own hospitals, of which 17 are for patients suffering from general medical and surgical diseases, 18 for the tuberculous, and 16 for beneficiaries suffering from neuropsychiatric conditions. At Washington, D. C., and Cincinnati, Ohio, respectively, are maintained two Diagnostic Centers.

The medical division in a regional office, which is organized into general, tuberculosis, and neuropsychiatric subdivisions, is responsible for the physical and mental examination of claimants; for the provisions of medical care and treatment, including hospitalization, after-care, follow-up nursing, and social work; and, through physicians assigned as members of regional rating boards, for the medical phases of rating disabilities for compensation and insurance purposes.

Regional offices in the larger communities have what are designated as Class A dispensaries, consisting of complete clinics for internal medicine, general and special surgery, tuberculosis, neuropsychiatry, ophthalmology, diseases of the ear, nose or throat, urology, and dentistry. They also have fully equipped clinical and X-ray laboratories and a pharmacy.

Less completely equipped dispensaries—designated as B or C types—are established in other regional offices and suboffices, depending upon the comparative needs of the field station patient load. The medical treatment stations do not include standard dispensary equipment, but are supplied with facilities sufficient to conduct physical examinations and ordinary forms of treatment.

Besides the facilities provided in these dispensaries attached to regional offices and suboffices and in medical treatment stations, the

medical service of the Bureau is carried further, to the claimant at his home, by regular personal contacts with him through follow-up nurses operating under direction of the regional medical officers, by visits of the Bureau's social workers, and by authority for examination and treatment by designated physicians and dentists of the patient's community, employed on a part-time or fee basis, and operating under instructions from the regional medical officers concerned.

Besides the regular out-patient load of physical examinations and treatments of the Bureau's own beneficiaries, the medical staffs of the regional offices and suboffices are used for examination of applicants for retirement, because of disability, from the classified civil service, under authority of Section 5 of the Act of May 22, 1920; for examination of applicants for Federal civil service positions; for examination and treatment of beneficiaries of the United States Employees' Compensation Commission; for examination of beneficiaries of the Pension Bureau, upon request therefor; and, through a reciprocal agreement with the Dominion of Canada, and agreements with other nations allied with the American forces in the World War, for examination and treatment of foreign ex-service men.

The volume of the work done in the dispensaries of the United States Veterans' Bureau is indicated by the impressive totals of 915,433 examinations made and 904,475 treatments rendered during the fiscal year ending June 30, 1926. In addition, the medical officers attached to the rating boards in these offices are busied in the evaluation, from the Bureau's Schedule of Disability Rating, of the disabilities in a total of 226,484 persons who were receiving compensations during the fiscal year 1926.—*Excerpts from an article by Dr. B. W. Black, The United States Daily.*

RECENT DEATHS

PAUL—DR. WILLARD AUGUSTUS PAUL, a graduate of the General Medical College, Chicago (Homeopathic) in 1884, died at his home in Weston, December 2, 1926, at the age of 71. He had practiced formerly in Dorchester.

MCGRATH—The town of Hudson mourns the untimely death of DR. JOHN EDWARD MCGRATH, who died at his home there, November 25, 1926, of nephritis, at the age of 54.

Dr. McGrath was born in Natick in 1873, was educated at the Natick High School and entered Harvard Medical School, where he received the degree of M.D. in 1894. Before taking his degree he served as house officer at the Carney Hospital and attended the out-patient departments of other Boston hospitals. Settling in Hudson he built up a large practice, became a member of the School Board in 1904, and was appointed medical examiner of the Ninth Middlesex District in 1906, a position he filled until 1920.

He married a namesake, Miss Nellie A. McGrath, who survives him with three children.

Dr. McGrath was popular in Hudson; he was a past grand knight of Hudson Council, K. of C.; physician for Hudson Aerie, F. O. E., and Court Hudson Lodge; a member of Hudson Lodge, B. P. O. E., the Holy Name and several medical societies, including the Massachusetts Medical Society.

PERRY—DR. JOHN GARDNER PERRY, a New York surgeon, died at his recent home in Boston, December 1, 1926, aged 86.

Dr. Perry was a graduate of Harvard Medical School in the class of 1863. Before graduating he served as assistant surgeon to the Twentieth Massachusetts Volunteers, resigning in August, 1864. While in the service he wrote a series of letters to his wife entitled "Letters from a Soldier," later published in book form. He settled in practice in New York, was consulting surgeon to the Woman's Hospital in the State of New York and was highly thought of in the medical profession. Since his retirement 20 years ago he had lived in Boston.

He is survived by one sister, Miss Abbie Perry of Boston.

OBITUARY

SAMUEL GILBERT WEBBER, M.D.

DR. SAMUEL G. WEBBER, pioneer Boston neurologist, died at the Newton Hospital, of cerebral hemorrhage, December 5, 1926, at the age of 88.

He was born July 24, 1838, on Essex Street, near Chauncy Street, Boston, the son of Mr. and Mrs. Aaron D. Webber. The elder Webber was a carpenter and builder and laid claim to being the first man of his craft to hang out a "carpenter and builder" sign in front of his establishment. Young Webber was educated in private schools and then entered Harvard, being graduated with the degree of A.B. in 1860 and receiving his M.D. in 1865. After the receipt of his medical degree he went to Vienna where he studied from 1866 to 1867.

He served in the Union navy from 1862 to 1865 as assistant surgeon. Part of his experience in the navy counted in his favor for the degree he received at the expiration of his service.

He settled in practice in Boston and was pathologist to the Boston City Hospital from 1869 to 1872, having served as physician to the Boston Dispensary and visiting physician to the Carney Hospital, from 1868 to 1870; then he treated diseases of the nervous system at the Boston Dispensary until 1877 when he was made visiting physician to the department of nervous and renal diseases at the City Hospital, a position he held until 1885. He was clinical instructor in diseases of the nervous system in Harvard Medical School during ten years after 1875 and then became resident physician to the Adams Nervine Asylum in Jamaica Plain. There he remained until 1891, endearing himself to a long series of patients by his approachable manner and genial disposition. He had begun his contributions to medical literature by

taking the Boylston Prize at Harvard in 1866 with a paper on "Cerebro-spinal Meningitis." In 1885 he published his chief work, a book entitled: "A Treatise on Nervous Diseases," which was used in the medical schools for a number of years. To the BOSTON MEDICAL AND SURGICAL JOURNAL, to Ziemssens's Cyclopaedia, to the Boston City Hospital Reports and elsewhere he contributed a large number of articles on his specialty. From 1892 to 1902 Dr. Webber was professor of neurology at Tufts College Medical School. He joined the Massachusetts Medical Society in 1865 and his name was placed on the retired list in 1911; he was a member of the American Neurological Association, the Boston Society of Neurology and Psychiatry, the Boston Medical Library, the National Geographic Society; a life member of the Young Men's Christian Association, the Massachusetts Home Missionary Society and the Boston Congregational Club. A man of short stature he had a full beard and a kindly smile, he was a familiar figure on the streets of Boston for many years. He is survived by his widow, Mrs. Nancy Sturtevant Webber, and two unmarried daughters. Of recent years he had made his home in Newtonville.

CORRESPONDENCE

NOTES FROM THE BERKSHIRE DISTRICT

519 North Street, Pittsfield, Mass.

Editor, Boston Medical and Surgical Journal:

The doctors of the House of Mercy of Pittsfield recently tendered a complimentary dinner to Dr. Henry Colt, the Nestor of Medicine in this region. There was an attendance of 50 doctors, and after a few short speeches a loving cup was presented to Dr. Colt in celebration of his 70th birthday.

The Berkshire District is to have a meeting at the New American House Thursday, December 16, at which Edward L. Keyes, M.D., of New York City, will speak on "Some Common Urological Problems." Dinner will be served at 6.30, the meeting following directly after. All members of the medical profession are invited to attend.

The Berkshire District is to hold a meeting in the middle of January, at which Dr. Kohlmer of Philadelphia, Professor of Pathology, will be the guest of honor.

The Berkshire Anti-Tuberculosis Society and the Pittsfield Community Health Association held a joint meeting at the municipal hall last month, at which the value of the Christmas seal was discussed, and the fight against tuberculosis was explained by three eminent speakers, Dr. Cort of Springfield, Dr. Emerson of Worcester, and Mr. McKendrick of Boston. There was a very good turnout of the public, and the value of such meetings in spreading the gospel of health was demonstrated.

A. P. MERRILL.

REPORTING OF CANCER CASES

Editor, Boston Medical and Surgical Journal:

The medical profession of Newton through the Newton Medical Club has voted to aid in the campaign against cancer by reporting cases of this disease. A fundamental approach to any disease is

through ascertaining its volume. This reporting area in Newton is pioneer work and will be of inestimable value in directing same development of the program.

A special committee of Newton physicians has been appointed to direct this work and one of the undersigned, as Chairman of the Newton Board of Health, has been appointed chairman of this committee. We ask that any physicians outside of Newton who see Newton residents with cancer report the same to the Board of Health, City Hall, West Newton, or to the State Department of Public Health. Forms are being sent to all Newton physicians and will be sent to any other doctors who may report cases. The cooperation of the local hospitals in reporting cases will also be sought. A cancer clinic is being opened in the Newton Hospital.

Any help that can be given to this constructive work will be appreciated.

Yours truly,

FRANCIS GEO. CURTIS, M.D.,
Chairman, Newton Board of Health.
GEORGE H. BIGELOW, M.D.,
State Commissioner of Public Health.

REMINISCENCES OF THE HARVARD MEDICAL SCHOOL

Boston, November 26, 1926.

Editor, *Boston Medical and Surgical Journal*:

The following letter from Dr. George Erastus DeWitt of Wolfville, N. S. (Harvard Medical School, 1872), has been sent to me by Dr. John W. Dewis of Boston. Dr. DeWitt died recently at the age of 82. I am sure that there are many of your readers who would be interested in these reminiscences of fifty years ago about the Harvard Medical School.

Yours sincerely,
HENRY R. VIETS.

Wolfville, N. S., August 15, 1924.

Dear Dr. Dewis:

I have not forgotten your request made some time ago that I record some of the reminiscences of the Harvard Medical School of fifty odd years.

One of the attractions experienced by many medical students of Nova Scotia and the other Maritime Provinces was to come into contact with Oliver Wendell Holmes, whose writings as a poet essayist had contributed so liberally of his rare gifts and inspiration to the world. Nor were we disappointed when we came into closer touch with his personal influence. He would at times relieve the monotony of his subject, "Anatomy," by a flash of humour recalling to us some of the quaint expressions of the "Professor of the Breakfast Table," and other literary subjects so instructively and cleverly dealt with.

In the days of the late sixties an annual banquet would be given to the students at one of the hotels,—on one of the occasions with a representation of the Scotch laddies from Cape Breton and the other Maritime Provinces. When dinner had been served speeches were made and songs sung, ending with the "Star Spangled Banner" and "My Country, 'Tis of Thee." One of the Cape Breton men who stood upon the right of the pianist started the anthem to the words "God Save the Queen." He had only got to the end of the first line when a United States student, standing on the opposite side of the pianist, with clinched fist struck the Cape Bretoner in the face. Then there was something doing. The mirror over the piano was soon shattered, chairs and tables were overturned. The muscular arms of the Cape Bretoners were seen to flash out straight from the shoulder and their opponents to totter and fall like ninepins. Out into the square they fought; faces were bruised,

eyes closed and noses bled. On the following day, when the class in Anatomy, which was the largest in the school, had assembled, Dr. Holmes entered the arena with measured step and lips compressed. When opposite his table he turned and concentrated his gaze upon the bruised and disfigured faces. He spoke three words, "You deserved it," and then resumed his work. I never heard of a repetition of a similar episode again, or of the objection to singing "God Save the King."

Another attraction to medical students at Harvard in those days was the deserved reputation of the chief surgeon of the Massachusetts General Hospital, Dr. H. J. Bigelow. He was of a fine figure, about six feet tall, and always carefully and neatly dressed. He wore a well groomed beard and mustache. His shapely hands and tapering fingers as he manipulated the scalpel when operating had a charm and dexterity possessed by few surgeons of his day. When the superman, Abraham Lincoln, was asked the question by a member of his executive, how long a man's legs ought to be, the President replied that a man's legs should be just long enough to reach from his body to the ground, no surplus, no deficit. Dr. Bigelow's figure from head to heel was of Lincoln's description, "no surplus, no deficit."

Dr. Bigelow's demonstration of the luxation of the hip was one of his interesting and lastingly instructive lessons. Instead of using force with the pulley in reducing dislocations of the hip, there were three motions, flex, abduct and evert, that he described, and frequently demonstrated upon the subject, which from then until the present has been the mode of reducing dislocations of the hip joint. Dr. Bigelow also named the ligament which obliquely crosses the hip joint from the anterior spine of the ilium to the anterior intertrochanteric line as the "Y" ligament and demonstrated the resistance of the ligament and injury done to it when force by pulleys was used, but averted by the methods of the three motions, flex, abduct and evert.

Dr. Bigelow would frequently attend the students' banquets and would contribute to the occasion by relating interesting anecdotes, interjected with humour, adding interest to the occasion.

Dr. Hodges operated alternately at the Massachusetts General,—a man of fine presence, deliberate in his mode of operating and well liked by the students.

Another landmark in the operating room was the constant and never failing assistant who was known to us by the name of Jim. He would, as the case necessitated, care for the instruments, administer the anesthetic, and, without apparent effort whether the patient weighed 200 or 50 pounds, lift him from the table and carry him to his ward.

The other professors of the Harvard staff in those days were Drs. Jackson, Shattuck, Buckingham, Bowditch, Ellis and Clarke, some of whom were beginning to feel the weight of years and the lengthy period of teaching that added to the knowledge of the students in those days. There was also another, who, although not upon the professional staff, was surgeon-in-chief in the City Hospital, Dr. David Cheever, whose helpful clinics with his persuasive and gentlemanly methods materially assisted us in our endeavor to store our minds with his teachings.

I have been asked if, in the old Harvard days before the dawn of antiseptic surgery, the surgical operators were careless regarding their dress or their coats worn at the operations. I do not recall any carelessness in the dress of Drs. Bigelow, Hodges or Cheever.

After Dr. Holmes had returned from Paris, where Semelweis, the pioneer in obstetrics (clean) had declared that puerperal fever was a "dirt disease," Oliver Wendell Holmes, who had been a student for several years in Paris, brought back Semelweis' views. This theory propounded by Dr. Holmes had undoubtedly something to do, even in that day, with

convincing the teachers, years before the results of the investigations of the three great stars of preventive medicine, Pasteur, Koch and Lister, that dirt caused disease. This conviction, reiterated by Dr. Holmes and the professional staff of the school, over fifty years ago, was instrumental in the adherence to cleanliness in the operating room and at the bedside. How many lives of mothers would have been saved by the general practitioner if cleanliness in person, instruments, nursing and clothing had been observed!

While the coats worn by the operators may not always have been stainless or spotless, I do not think there was a surgeon on the staff who, like the bandit, added a notch to his gun when he took a life, who gloried in the accumulation of blood stains upon his gown, indicative of proclaiming him the greater surgeon.

I do believe, however, that, over fifty years ago, because of the acknowledged Semmelweis idea that puerperal fever was a "dirt disease," persistently proclaimed by Dr. Holmes and accepted generally by the teachers, the old Harvard Medical School was a lap ahead on the road to preventive medicine of any other medical school in the United States.

Although I have not dwelt upon the personnel and the subjects taught by all of the teachers, Dr. Shattuck in the theory and practice of medicine, Dr. Ellis and Dr. Clarke in clinical medicine, Dr. Buckingham in obstetrics, yet I cherish and venerate their efforts to impart to us the essentials of their subjects.

Since the old days referred to, some of us have sought other schools in the old country and in the United States, but their associations have not dimmed or displaced the memories that still cling to the Professors of Old Harvard.

Yours sincerely,
G. E. DeWITT.

FURTHER QUESTIONS AND COMMENTS RELATING TO THE WORKMAN'S COMPENSATION LAWS

Northampton, Mass., December 4, 1926.

Editor, Boston Medical and Surgical Journal:

Through the JOURNAL, I desire to express my appreciation, to the Physician to the Accident Board, for the clarity with which he establishes the status of the Medical Advisory Committee.

It completely refutes the claims of attorneys for insurance companies, and others, that this committee represented the position of the Massachusetts Medical Society, the Homeopathic Society and the profession in general.

I would also say that no member of the committee, to my knowledge, ever advanced such claims.

It is also evident that under Chapter 152, Section 13, the Industrial Board has had full power, during the past six years, to change rates paid hospitals, and conditions under which staff doctors are penalized, but has evidently preferred to make the Advisory Committee the scapegoat for its unfavorable decisions affecting hospitals and doctors.

The very fact that but three or four of the insurance companies doing compensation work in the State avail themselves of the regulation affecting staff doctors, is evidence that the companies realize the injustice of the recommendation.

I plead guilty to overstating the amount paid during one year by employers, and I also overstated the amount paid out to injured labor.

The corrected comparison will read: Of every \$14 paid in by employers, injured labor gets \$4; hospitals, doctors and nurses, \$2; dependents, \$1; and, sad to relate, but \$7 is left for the insurance company.

In order to pay all compensation claims, including medical services, and the outstanding amount esti-

mated as necessary to carry such claims to completion, \$7,000,000 was paid out in 1924. To accomplish this employers paid into the treasuries of insurance companies over \$13,000,000.

The question arises, is this a reasonable, or an excessive overhead, and on the answer to this question depends whether injured labor, doctors and hospitals should receive more pay.

I think there is a general belief that a large part of the overhead is diverted to unnecessary channels, and that a method should be inaugurated whereby workmen should receive a greater amount of the total premium.

I would call attention to one item which the Medical Adviser mentions in his letter of November 22, under insurance rates, as the Insurance Department's basis of computation.

Expected losses, 60% of premiums paid;
Balance, 40% expense, as follows—Inspection and prevention, 2½%; Claims adjustment, 8%; Payroll audit, 2%; Taxes, 2½%; Home office expense, 7½%; Acquisition expense divided between agents and brokers, 17½%.

Two major thoughts immediately occur—1st, Where is the profit camouflaged? 2nd, Why pay nearly one-half of the total 40% expense (to be exact, 17½%) to agents and brokers, to acquire a business in which there is no apparent profit?

And to analyze that item further, 17½% of \$14,000,000 amounts to around \$2,500,000 allotted agents and brokers, and yet we find the maimed workmen paid only \$4,000,000, while hospitals, doctors and nurses caring for those injured people are paid around \$2,000,000.

Is that 17½% a just expenditure? I believe the Industrial Accident Board is overworked and underpaid. They should receive double the salary, and be placed in charge of all compensation activities, getting rid of insurance companies with their adjusters, attorneys, agents and brokers.

Let the Commonwealth bring into existence a trained force to look after the welfare of injured labor.

I certainly believe Medical Societies and Hospital Associations should be able from time to time to suggest changes.

They are State-wide and alive to what is needed, but committees die, and "the good they do is oft interred with their bones, the evil lives after them."

As I consider Dr. Donoghue's answer to my suggestions I am pleased to note they are now in effect, or he hopes they soon will be.

To some of them he throws a few straw men out into the fairway, but either he or I, any day we are "going good," can shoot over all of them, right onto the green.

The very able committee appointed by the Governor, making a comprehensive and impartial consideration of all angles of the Compensation Law, will, no doubt, be able to iron out the problems that have been accumulating the past six years, and present a solution equitable to all concerned.

Very truly,
J. G. HANSON, M.D.

CONNECTICUT DEPARTMENT OF HEALTH

MORBIDITY REPORT FOR THE WEEK ENDING DECEMBER 4, 1926

Diphtheria	32	Measles	69
Last week	25	Last week	32
Diphtheria bacilli carriers	14	Whooping cough	33
Last week	14	Last week	52
No typhoid fever reported this week		Bronchopneumonia	22
Scarlet fever	58	Chickenpox	143
Last week	44	Encephalitis, epidemic	4
		German measles	3

Influenza	13	nary	30
Mumps	9	Tuberculosis, other	5
Pneumonia, lobar	42	forms	42
Septic sore throat	3	Gonorrhea	33
Tuberculosis, pulmo-		Syphilis	

**CASES REPORTED TO THE MASSACHUSETTS
DEPARTMENT OF PUBLIC HEALTH FOR THE
WEEK ENDING NOVEMBER 27, 1926**

Anterior poliomyelitis	3	Pneumonia, lobar	51
Anthrax	1	Scarlet fever	289
Chickenpox	289	Septic sore throat	3
Diphtheria	87	Suppurative conjunc-	6
Encephalitis lethar-		tivitis	45
gica	1	Syphilis	1
Epidemic cerebrospi-		Trachoma	
nal meningitis	1	Tuberculosis, pulmo-	81
German measles	13	nary	
Gonorrhea	139	Tuberculosis, other	16
Influenza	9	forms	13
Measles	51	Tuberculosis, hilum	6
Mumps	170	Typhoid fever	128
Ophthalmia neonato-		Whooping cough	
rum	32		

WEEK ENDING DECEMBER 4, 1926

Anterior poliomyell-		Ophthalmia neonato-	
tis	3	rum	28
Chickenpox	464	Pneumonia, lobar	73
Diphtheria	115	Scarlet fever	345
Dog-bite requiring		Septic sore throat	4
anti-rabic treat-		Suppurative conjunc-	4
ment	6	tivitis	34
Encephalitis lethar-		Syphilis	1
gica	2	Trichinosis	
Epidemic cerebrospi-		Tuberculosis, pulmo-	77
nal meningitis	4	nary	
German measles	11	Tuberculosis, other	19
Gonorrhea	84	forms	3
Influenza	12	Tuberculosis, hilum	14
Measles	49	Typhoid fever	125
Mumps	180	Whooping cough	

NOTICES

**DR. E. G. BRACKETT AT THE NEW YORK
ACADEMY OF MEDICINE**

IN the program of the meeting of December 16, 1926, Dr. E. G. Brackett's name appears as reader of a paper under the title of "Reconstruction Operations on the Hip Joint."

UNITED STATES PUBLIC HEALTH SERVICE

Assistant Surgeon General W. F. Draper. Directed to proceed from Washington, D. C., to Boston, Mass., and return, for conference December 1 with State and local health authorities regarding problems of the sanitary control of shellfish. November 27, 1926.

HARVARD MEDICAL SCHOOL NEWS—At a meeting of the President and Fellows of Harvard College in Boston, November 3, 1926, the following appointments for three years from September 1, 1926, were voted: Karl Murdock Bowman, Assistant Professor of Psychiatry; Augustus Riley, Assistant Professor of Genito-Urinary Surgery; William Carter Quinby, Clinical Professor of Genito-Urinary Surgery. These appointments were confirmed by the Board of Overseers November 22, 1926.

Dr. George Burgess Magrath, medical examiner of Suffolk County, gave an interesting talk recently before the students of Harvard Medical School, on

"Some Medical Experiences," illustrated with lantern slides. The lecture was given under the auspices of the Students' Association, Phillips Brooks House Association, of Cambridge.

**REPORTS AND NOTICES OF
MEETINGS**

MASSACHUSETTS GENERAL HOSPITAL

CLINICAL MEETING

A CLINICAL MEETING of the staff of the Massachusetts General Hospital will be held in the Administration Building, Fruit Street, on Thursday, December 16, at 8:15 P. M.

PROGRAM

- 1.—Presentation of Cases.
- 2.—The Thyroid and Parathyroid in Relation to Calcium Metabolism, Dr. J. C. Aub and Dr. Walter Bauer.
- 3.—The Role of Adrenal Secretion in Temperature Regulation, Dr. Walter B. Cannon.

A cordial invitation to attend these meetings is extended to physicians, medical students and nurses.

COMMITTEE ON HOSPITAL MEETINGS.

STAFF CLINICAL MEETINGS

BOSTON CITY HOSPITAL

CHEEVER SURGICAL AMPHITHEATRE, Saturday, December 18, 1926, at 11 A. M.

Demonstration of cases by members of the Medical and Surgical Staff.

Discussion of the cases invited.

Physicians, medical students and nurses invited.

JOHN J. DOWLING, *Superintendent.*

OFFICE OF THE CORPS AREA SURGEON

THE Winter Training Schedule for Reserve Medical Department Officers of Boston and vicinity was held on December 15, 1926.

At the meeting on November 17, 1926, there were seventy officers present and all were enthusiastic concerning the program given. Captain Dean's paper on "Army Paper Work," which heads the list each evening, is exceedingly practical and will be of great assistance to Reserve Officers when ordered to active duty. The paper of Colonel P. C. Field, M. C., was characteristic of that officer, was ably presented and contained a wealth of information.

These winter meetings of the Reserve Officers are bound to be productive of much good to all those who attend.

At the meeting on December 15, 1926, Captain G. Philip Grabfield, Med-Res., devoted one period to "Regimental Medical Detachments with Infantry, Cavalry and Artillery." Major E. F. Haines, M. C., Regular Army, had for his

subject, "Military Honors, Courtesies and Customs," while Captain Dean spoke on "Military Correspondence."

ESSEX SOUTH DISTRICT MEDICAL SOCIETY

THE Essex South District Medical Society held its regular meeting at Beverly Hospital on Wednesday, Dec. 1, 1926, with the following program: Clinic at 5 p. m.

1st—Dr. Clifton L. Buck, a. Fracture of Skull with Labarynthine Disturbance and Angina Pectoris; b. Some pulmonary complications following tonsillectomy.

2nd—Dr. Mary Bogan, X-ray Examination of Gall Bladder.

3rd—Dr. James Shatswell, Patient with Argyria.

4th—Dr. Albert F. Parkhurst, Hemorrhagic Disease of the Newborn.

5th—Dr. Peer P. Johnson, Clinic.

6th—Display of Interesting X-ray Films In the X-ray Room.

Dinner at 7:00 p. m.

The speaker of the evening was William Jason Mixer of Boston whose subject was "Diagnosis and Treatment of Cerebral Lesions."

Attendance 60. Adjourned 10:30 p. m.

WM. T. HOPKINS, *Reporter*.

BOSTON MEDICAL HISTORY CLUB

A MEETING of the Club was held at the Boston Medical Library, November 26th, 1926.

The first paper of the evening, on "The History of the Development of Medical Schools," was read by Dr. Charles F. Painter. He outlined the growth of medical teaching from earliest times, laying stress on the organization of schools and on the subjects taught, both in the pre-medical courses and in the academic curriculum. He also pointed out the changes in teaching students that have taken place in the last decade, speaking especially of the full-time clinical teacher and the tutorial system, and he showed that these ideas were not new but had been in vogue many years, even as far back as the Middle Ages.

Dr. Lund, in discussing Dr. Painter's paper, traced back the number of generations of teachers of medicine since Homeric times: 21 generations back to the Balogna school; 30 generations more to Galen; 18 more to Hippocrates; and 18 more to Machaon and Podalirios, making only 87 generations in all. Dr. Streeter said that Rashdall, in his "Universities of Europe in the Middle Ages," paid too little attention to the medical schools. He hoped that this would be corrected in later editions. Dr. Streeter also noted that the Balogna school was probably formed by men from Florence and

that Thaddeo Alderotti was the first real teacher of scholastic medicine in the school.

Dr. J. W. Courtney then read a paper written by Dr. J. W. S. Johnsson of Copenhagen on "Notes on the Black Death in Danish Folk Lore and Tradition." Dr. Courtney spoke of Dr. Johnsson's interest in the subject and showed a recent book by him entitled, "Storia della Peste Avvenuta nel Borgo di Busto Arsizio, 1630," by J. W. Johnsson, Koppel, Copenhagen, 1924. Dr. Johnsson, in his paper, made the following observations: Non-medical men have been the best observers of plagues, such as the Black Death, and the most authentic accounts have not been written by medical men. The plague was probably brought to Denmark from England by stranded sailors and two old chronicles put the date when it was introduced as 1349. The Black Death begun in India about 1346, appeared in Paris and in Calais in 1348, and reached England late in the summer of that year. In November it is recorded in London, but the worst attack in England appeared in February 1349. Belgium and Holland were not affected at this time. The chronicles state that there were many astrological signs and supernatural phenomena observed in connection with the plague. In 1848, earthquakes took place in Italy and elsewhere, and the observations of "mist," or, as it was called, "a dust clouds associated with volcanoes in eruption" in the air, may have been due to them. The notes are not very full on the spread of the plague over Denmark but give vivid pictures of the number of persons attacked and their sudden death. In one community of 12 farms, only three servants were left alive. Whole counties were depopulated. The few living people built bon-fires and rang bells in order to find out if anyone in the neighborhood was alive. About one-third of the population of the country was stricken. The chronicles do not give good descriptions of the symptoms. They speak of black and red spots on the skin. Death came quickly "like a sneeze,"—often on the first sneeze. Sneezing three times was sure to be fatal. There was no defense for the plague,—except to run away. All affected persons, were required to leave the towns, to die or recover. No other government regulations are recorded, but there was certainly some isolation practiced. People were known to have waited themselves in for six months.

Mr. Ela, in the discussion, drew attention to "The Plague Pamphlets of Thomas Dekker," recently edited by F. P. Wilson, London. Dr. Coriat mentioned that Defoe's account of the plague was probably accurate although Defoe left London and perhaps did not personally witness any cases.

Dr. Edward C. Streeter then spoke briefly on "Thierry de Hery." He said Paré, the father of modern surgery, was a fine judge of charac-

ter and must have chosen his friends well. He had a very large acquaintance as he was surgeon to five different kings. Of his many friends Thierry de Hery was perhaps the closest. They were dressers together in the Hotel Dieu and served under Francis I in Turin in 1837. Thierry de Hery sent Paré a man suffering with a fracture of the skull, "by contracoup," and Paré found little to be done, so excellently had the case been cared for by his friend. In 1838, Thierry studied syphilis in Rome and later joined Paré in Paris. They both failed in the examinations in 1840 and then spent a year prosecuting under Sylvius, passing the examinations the next year. They did many necropsies together. In 1875, when Paré issued his folio volume of collected works, he mentions Thierry as the author of the chapter on syphilis. Thierry de Hery is said to have died in 1599 at the age of 89, but in Dr. Streeter's opinion the historians are probably mistaken. Paré, in the 1575 edition, says that his friend had already died and, when other evidence is considered, it seems probable that Thierry died before 1559. He wrote a book on syphilis which was published in 1552. It is written in French and is one of the earliest attempts to write a medical treatise in the vernacular. Thierry de Hery followed Nicolo Massa in advising mercury for the treatment of syphilis. He mentions cases of neurosyphilis in his book. Mercury had been used even in Galen's time and was used extensively by the Arabs for the treatment of chronic joint and skin infections. It was, therefore, a well-known drug when the epidemics of syphilis swept Europe.

Mr. Ballard showed the following books: 1, Albrecht Dürer, Paris 1557 edition; 2, Clippings from many sources, collected at the time of the death of Oliver Wendell Holmes (1894), in two volumes, and 3, a manuscript, written in Coptic Greek, dated 1400-1450, the receipt-book of a physician. He also showed the Osler Memorial Medal, recently received by the Boston Medical Library.

SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE MEETS

The Society for Experimental Biology and Medicine—Massachusetts Branch—held its regular monthly meeting Wednesday afternoon, November 17, in the Bowditch Library of Harvard Medical School.

The program consisted of several papers on various aspects of experimental biology and medicine, by members of the Society.

W. J. Crozier, of the Laboratory of General Physiology, Harvard University, Cambridge, discussed "Galvanotropism and 'Reversal of Inhibition' by Strychnine." He pointed out that definite neuromuscular effects are produced

in a variety of organisms by the passage of a constant electric current. The character of the induced galvanotropic curvatures and movements has played a certain part in the development of the tropism doctrine of Loeb.

The interpretation of galvanotropism in metazoans rests upon the assumption that the current serves to excite definite groups of nerve cell bodies. The effects are such that among annelids, for example, the animal typically extends and lengthens when the head is toward the cathode, but shortens when the current is in reverse directions. These effects are in certain respects similar to those produced by neurophil drugs. Thus strychnine induces a similar and comparable elongation, whereas nicotine leads to shortening. It was considered by Dr. Crozier that if the effects of such alkaloids are due to selecture or differential unions with particular groups of nervous elements, the result of combining the action of a substance of this type with that of the electric current should be merely an accentuation of the primary action, since the response induced involves activity of the same nerve muscle groups. Strychnine effects were considered in this respect by Dr. Crozier. He found that the cathodically galvanotropic orientation of certain worms, and the anodic orientation of others were reversed by the action of strychnine under conditions such that the typical "reversal of inhibition," on reversal of reaction to tactile excitation, induced by this substance was apparent. Nicotine did not give this result. Since it is necessary to assume that the strychnine effect is due to action upon the central ganglia and since the galvanotropic effect is supposed to depend upon action of the current on nerve cell bodies of the central ganglia, it must be assumed that the locus of reversal by strychnine is not perisarcial, but presumably synoptic.

The second paper was that of Dr. S. R. Detwiler of the Zoological Laboratory of Harvard University, entitled, "An Experimental Study of Mauthner's Cell in Amblystoma." Dr. Detwiler pointed out that it was quite definitely established that the 2 giant Mauthner Neurons in the central nervous system of teleost fishes have a functional role in the equilibration of the organism during the performance of rapid and intricate movements. The two perikarya lie in the medulla and their axones make direct synaptic connections with the auditory root fibers, and after decussing in the ventral commissure and coursing (through the spinal cord) caudally, synapse with the motor horn cells. Dr. Detwiler's experiment dealt with the elimination of one of the two neurones normally present, with a view to studying the effect of such absence upon the activity of the organism. The animals (in which attempts were made to remove Mauthner's Cell) fell decidedly into two

groups as regards behavior. In group I equilibrium disturbances were either slight or entirely absent, but the animals showed jerky swimming, were rapidly exhausted and were unable to execute the normal sustained rapid swimming reflexes. In group II the functional disturbances were essentially those lacking an ear vesicle (bend of body towards operated side, body torsion, flexion of fore limb on operated side and extension of opposite limb, cork screw swimming, general inactivity, and in some cases rapid exhaustion).

Examination of sections in group I showed Mauthner's Fiber absent, but the ear and its nervous mechanism normal. Group II showed defective development of the ear and its nervous connections regardless of whether Mauthner's Fiber was present or absent. A correlative study of the structural and functional abnormalities for the groups as a whole showed that in the absence of one Mauthner's Cell essentially normal posture is maintained. Thus unless other tracts are compensating for its loss, Mauthner's Cell is not primarily bound up with the equilibratory reflexes. The type of response elicited by the lack of Mauthner's fiber suggests that this giant neurone plays an important rôle in transmitting impulses which are concerned in sustained coordinated rapid reflexes.

The paper by Walter S. Hanover of the Biological Laboratory, Clark University, Worcester, Mass., dealt with "The Relation Between Pigmentation and Injury in the Conjunctiva of the Frog Tadpole." It has been shown that following the removal or extensive injury of the conjunctiva of frog tadpoles the regenerated conjunctiva becomes heavily pigmented by epidermal melanophores. Experiments were conducted by Dr. Hanover to discover relationships that might exist between the extent of injury and the amount of pigmentation, as well as between the locus of injury and distribution of the pigment, with the results that when incisions were made in places about equally distant from the edge of the conjunctiva, the resulting pigmentation was proportional to the length of the cuts. The minimum wound that caused pigmentation was an incision about 1 mm. long located not more than 1 mm. from the edge of the conjunctiva. Cuts less than 2 mm. long did not cause pigmentation near the center of the conjunctiva. The pigmentation produced by the injury persisted for 4 months, when the experiments were discontinued. Within a few days after injury the melanophores lost their typical spindle shape with dendritic processes and become rounded contracted cells, this occurring locally only. Dr. Hanover came to the following conclusions: The amount of pigmentation by epidermal melanophores in the regenerating conjunctiva is directly proportion-

al to the extent of injury, and inversely proportional to the distance of the wound from the edge of the conjunctiva—that in tadpoles which are just approaching metamorphosis the pigment cells persist for at least 4 months; and that the initial expanded phase of the melanophores is followed by contraction which appears to be permanent.

The next paper was that of Carl R. Doering—on "The Course of Diphtheria Mortality in Massachusetts from 1875 to the Present." Dr. Doering pointed out that there has been a steady decrease in the mortality rate in diphtheria, which decrease follows the law of geometric progression, since the year 1876, and enumerated the following factors as responsible for this decrease:

1. Changes in medical diagnoses and prompt reporting of cases.
2. Control measures directed against diphtheria, including disinfection, quarantine, and the inauguration of anti-toxin.
3. Control measures directed not particularly against diphtheria, including general education, hygiene, and regular physical examinations to ascertain condition of tonsils, teeth, and the like.
4. Biological factors, including the decrease in the virulence of the organisms, and the acquisition by the people of an increased immunity against diphtheria.
5. The introduction of the Schick Test for immunity.

Dr. Doering discussed each of these factors at length, but laid particular stress upon the factor of anti-toxin, as being the most important of the factors in the causation of the decrease of mortality.

The next paper was that of Drs. Burnham Sarle Walker and Allan Winter Rowe of the Evans Memorial for Clinical Research and Preventive Medicine, and Boston University School of Medicine, on "Some Factors Governing Renal Function." These authors, with the ultimate objective of finding a satisfactory method for the quantitative demonstration of impairment of renal function in humans, have studied the rate of elimination of urea as compared with the amount of urea in the blood, and with the simultaneous excretion of water. Dr. Rowe in opening the discussion stated that there were two divergent schools of thought in regard to the relationship of blood urea levels to rate of urea excretion, that of Ambard and McLean who have shown that the rate of excretion is a parabolic function of the concentration of urea in the blood, and that of Addis and Adolph, who have shown that under conditions involving a large provocative ingestion of either urea or water, or both, a linear relationship exists. These authors set out first to either verify or disprove these findings.

By combining their data on normal cases with the normal cases reported by McLean and Addis, together with computation, they have demonstrated that the relationship in these normal cases is not linear.

These authors have investigated the body weight and urine concentration factors in the McLean Index, and they have found that neither add to the validity of the determination, and further that the urine concentration factor in this Index, which is based upon the second law of Lombard, is entirely unreliable.

In their experimental work on the relationship between variations in urine volume and urea output, they have found that up to the rate of volume output of 100 c.c. per hour the urea output increased as a linear function of the volume output, while above this limit, the relationship become obscured by other factors. This partial correlation they explain according to the theory of Crawford and McKintosh; namely, that where there is no excess of water to be eliminated, the elimination of water is determined by the amount of solutes to be excreted, a condition in which urea would be a major factor. Hence for each blood urea level there would exist a definite volume for the excretion of urea. In the presence of excess water, however, there would be an elimination of water regardless of the amount of urea simultaneously excreted, and there would be no quantitative relationship.

Dr. Hugh K. Ward of the Bacteriology Department of Harvard Medical School, reported on a "Light Activated Hemolysin Produced by *B. Influenzae* in a Hematin Medium," with the following conclusions: That very few strains of *B. Influenzae* are haemolytic if the organism is grown on the ordinary blood agar plate, but if hematin is added to this medium and the plate exposed to the action of light after being incubated, well marked haemolysis is found in the area surrounding the colonies. No haemolysis takes place if the plates are kept in the dark after incubation. This reaction is characteristic of all strains of *B. Influenzae*, and does not occur with other organisms.

HARVARD MEDICAL SOCIETY MEETING

DRS. GEORGE MINOT AND WILLIAM P. MURPHY were the speakers of the Harvard Medical Society meeting held Tuesday evening, November 16, 1926, at the Peter Bent Brigham Hospital. Their subject was "Pernicious Anemia—Especially Remarks Concerning Treatment."

Preceding the lecture by Drs. Minot and Murphy, a neurological case was presented by Dr. Cairns of the hospital, for the physicians present to discuss. The patient's family and past histories were not considered important, but her present history and physical examination were

presented in detail. She was shown to have almost complete left ophthalmoplegia, internal and external, in addition to ptosis of the left eyelid. The left eye also showed proptosis, and fairly generalized retinal arteriosclerosis. She had anaesthesia to light touch and analgesia to pinprick in an area surrounding her left eye, and the corneal reflex on this side was diminished. Thus the clinical picture is a very well defined syndrome, there being a lesion of the 3-4-6 cranial nerves with also a lesion in the ophthalmic division of the fifth cranial nerve on the left side. Discussion of the case narrowed the diagnosis to either periodic paralysis of the ophthalmoplegia migraine type, or a carotid aneurysm. Discussion finally pointed to the latter as the most probable but the location of the aneurysm was disputed. The only suggestion for treatment was given as the ligation of the internal carotid artery.

Dr. Minot was next introduced by Dr. Sosman, Chairman of the Society. Dr. Minot opened his discussion on "Pernicious Anemia," by comments on Addison's monograph, "On Diseases of the Suprarenal Capsule," published in 1855, which contained a short but an admirable description of the disease as well as a description of the type of the people who have the disease, which we now know as Pernicious Anemia.

Last spring Drs. Minot and Murphy reported before the Association of Physicians a special diet for patients with pernicious anemia, which was given as follows:

1. Liver or Kidney—120-480 grams.
2. Red Muscle Meat—120-480 grams.
3. Fruit (10% or under)—200 grams.
4. Vegetables (10% or under)—500-600 grams.
5. Fat—70 grams or less.

The biggest essential is liver or kidney, and especially liver, and the diet must be taken continuously. The problem of taking it after the red count has risen to high levels has yet to be determined. The results have been prompt and have occurred with regularity in practically all cases, the degree of improvement has been marked in practically all, and the results have occurred consecutively now in some 90 cases under their treatment. The original 45 cases had an average red count of $1\frac{1}{2}$ million before beginning the diet. At the end of six weeks 90% had 3.1 million or better, and at the end of ten weeks 75% had 4 million or better. After 4 to 6 months 85% had 4.5 million or better. 40% of the 45 cases had 5 million or better and some cases had risen to 6 million.

Dr. Minot mentioned that the rapidity of improvement under this dietary regime depends upon the red count at the start, it being more rapid when the red count is low. The improvement is first observed by improvement in clinical

symptoms and signs, improvement of appetite, sense of well being, and bowel function prior to any noteworthy elevation in the red count or hemoglobin. In the blood, improvement is heralded by increase in the reticulated cells, and drops in the icterus index rate, but a diminution in the size of the red cells. Eosinophilia is also a sign of distinct improvement, the increase in the above cases being 0.8 to 10%. Those who have had nerve symptoms previous to the diet, improve to a degree that is unusual, and no nerve symptoms have been seen to progress in patients who have faithfully followed the diet.

Before speculating on how this diet may work, and why it should act, Dr. Minot discussed the present conception of the disease, stressing the work of Dr. Francis Peabody on the pathology of the bone marrow. Though red, the marrow is not hyperplastic. The cells are there but in an embryonic form, not in a state that will allow them to go thru their life cycle, this in a measure being comparable to what occurs in tumors. Dr. Peabody feels that blood destruction is entirely a secondary phenomenon but in some way associated with an excess of pigment that is liberated in the body and that cannot be used in the body to form new red cells.

Just what the dietary essential in liver is—has not been determined. It has not been shown to be vitamins, high protein or nitrogen, glycogen, or a purine substance. The liver per se is the important thing however has been conclusively demonstrated, the response of the marrow in producing reticulated cells being the method in which the beneficial effect is measured. High fat has not been shown to affect the production of reticulated red cells. Forced feeding of large amounts of cooked liver evokes a very distinct and sharp rise in the reticulated cells. Raw liver has been found practically as advantageous as the cooked in the treatment of the disease. With lean meat as an adjunct and vegetables rich in vitamins and which may form hemoglobin, the best results have been obtained. Because of the fact that the disease occurs particularly where dairy products are markedly consumed, Drs. Minot and Murphy have assumed that the disease is probably one of dietary deficiency, and an inquiry into the diet history of patients shows that a good percentage are fond of fat and dairy products but dislike meat, and vegetables.

Dr. Minot stated that such conditions as myxedema and myelogenous leukemia frequently attended the disease.

After the diagnosis of the disease, the success attending the treatment depends upon the diet, and this requires the earnest co-operation of the patient. The value of rest was also stressed, this being the only other form of therapy the patients should have. Blood transfusions

were not recommended by Dr. Minot, unless these were absolutely necessary in order to get the patient into a state where the diet could be administered.

The problem of continuing the diet indefinitely after the red count has returned to normal has not yet been decided by Drs. Minot and Murphy. Their present plan is to decrease the diet, but not to give it up, when the count has reached 5 million.

Dr. Minot reported that the diet has proven beneficial in improving anemia in other conditions, especially in secondary amenias and in achylia. Also he reported that the disease has been found to occur in families, for at least 10% of his cases have presented a family history.

In concluding, Dr. Minot pointed out that success in the treatment of these cases hinged on attention to all aspects of the given cause, and constant supervision of all details relative to the dietary regime, and that the dietary treatment offers more than any other kind of therapy, the liver of the diet supplying a lack of something or somethings that the patient had not obtained in his other diet over a period of years.

As a preliminary to Dr. Murphy's remarks, there was a brief demonstration of cases by Dr. Blotner and Dr. Potts of Peter Bent Brigham Hospital. Three cases were demonstrated, each presenting some phase of severe primary anemia. These cases had been under the dietary regime of Drs. Minot and Murphy for two weeks, and each had shown marked physical improvement, an increase in the red count, an increase in hemoglobin per cent., a decrease in the icterus index, and a decrease in the symptoms of the disease.

Dr. Murphy was then introduced and gave a few remarks concerning the disease and its treatment. He pointed out that the onset of the condition is almost invariably dated from a very definite, single instance or single disease such as influenza, or a definite gastrointestinal upset or possibly some surgical procedure. That a great majority of the cases with pernicious anemia have light hair, which turns gray or white, and have blue or blue-gray eyes.

Dr. Murphy next discussed the problem of the dietary treatment. He stated that the diet above outlined has seemed essentially distasteful to practically every patient encountered, and that the problem of treating the patient who is really ill is a very definite one. Hence the problem is an individual one. In the sick cases where the liver cannot be taken, Drs. Minot and Murphy have devised a very appetizing drink which looks like Malted milk, but which is in reality raw liver, and this has proven the solution of their problem. Some cases however have to be fed by the stomach tube until able to take the drink voluntarily. As the cases improve,

one item after another of the diet is added until they are getting the total diet outlined. In those cases able to take the diet from the start, variety in the preparation of the liver has proven to be the solution. Recently the Phillips House has demonstrated 22 different methods of preparing liver, so the problem does not seem unsurmountable.

Dr. Murphy next considered the effect of the diet on the patient and on the blood of the patient. The initial effect of the diet was said to make the patient definitely sicker, perhaps due to a reaction to such a change of diet. This period of reaction lasts from 1 to 4 days, during which diarrhea or constipation are outstanding. During and following this time of reaction in the patient clinically there are certain very definite changes in the blood. The reticulate count jumps quite definitely, becoming normal usually within 2 weeks. The iterus index gradually decreases, and is usually normal within or even below in 3 weeks. Shortly after the above two changes occur, or during the changes, the hemoglobin starts to rise, the red count rises and the protein-nitrogen increases, and the blood volume consequently rises. These results have proven so consistent that now with an increase in reticulocytes, an increase of red cells is looked for, and this used as a criterion for improvement.

Dr. Sosman, Chairman of the Society closed the meeting by claiming that the papers of Drs. Minot and Murphy were as valuable to the patients with pernicious anemia as insulin is to patients with diabetes.

HARVARD MEDICAL SOCIETY MEETING

THE next regular meeting of the Harvard Medical Society will be held as usual in the amphitheatre of the Peter Bent Brigham Hospital, Dec. 21, 1926, at 8:15 p. m. The program follows:

The Development of Human Motility, Dr. George Schaltenbrand.

Moving pictures will be shown. These pictures were made in Hamburg and promise to be very interesting.

All members of the Medical Profession, Medical Students and Nurses are invited.

NEW ENGLAND HEART ASSOCIATION

ALL are invited to attend the meeting of the New England Heart Association December 16, at the Peter Bent Brigham Hospital.

FALL RIVER MEDICAL SOCIETY

DURING the month of November the regular semi-monthly meetings of the Fall River Medical Society were held on the second and fourth Wednesdays.

On November 10th Dr. Edward N. Libby of Boston gave an informal talk to the society entitled "The Abdomen from a Medical Standpoint." The discussion was opened by Dr. Howard L. Jackson of Springfield.

On November 24th Dr. William Jason Mixter of Boston gave an informal talk before the society on the subject of brain and cord lesions. Discussion was opened by Dr. P. E. Truesdale and Dr. Daniel J. Fennelly.

EDWARD L. MERRITT, M.D., *Secretary.*

BOSTON HEALTH LEAGUE

A special meeting of the Boston Health League (Health Section, Boston Council of Social Agencies) will be held at Pilgrim Hall, 14 Beacon Street, Boston, on Friday afternoon, December 17, 1926, at 2:30 p. m.

Dr. Haven Emerson will present "The Report of Tuberculosis in Boston." This report is based on the study recently made by him for the City of Boston, at the request of his Honor the Mayor, and with the approval of the latter, is to be submitted at this meeting of representatives of health and welfare agencies and to citizens interested in the promotion of public health.

Your presence is earnestly requested.

SOCIETY MEETINGS

DISTRICT MEDICAL SOCIETIES

Essex North District Medical Society

Wednesday, January 6, 1927—Semi-annual meeting. Centre Church vestries, Main Street, Haverhill.

Wednesday, May 4, 1927—Annual meeting. Russell Hall, Young Men's Christian Association Building, 40 Lawrence Street, Lawrence.

Thursday, May 5, 1927—Censors meet for examination of candidates at Hotel Bartlett, 95 Main Street, Haverhill, at 2 P. M.

Essex South District Medical Society

Wednesday, January 6, 1927—Deer Cove Inn, Swampscott. Dr. James S. Stone, "Differential Diagnosis of Acute Abdominal Conditions in Children." Discussion by Drs. O'Keefe of Lynn, Nichols of Danvers and Walter Flippin of Salem, five minutes each.

Wednesday, February 2, 1927—Hawthorne Hotel, Salem. Dr. H. H. Clute of the Lahey Clinic, "Differential Diagnosis and Treatment of Thyroid Disease." Discussion by Drs. Johnson of Beverly and Field of Salem, ten minutes each.

Wednesday, March 2, 1927—Lynn Hospital. Clinic, 5 P. M.; supper, 7 P. M. Dr. George Minot, "Pernicious Anemia, with Special Reference to Liver Dist." Discussion by Drs. Sargent of Salem and Reynolds of Danvers, ten minutes each.

Wednesday, April 6, 1927—Danvers State Hospital. Clinic, 5 P. M. Dr. Allan W. Rowe, Chief of Research Service at Evans Memorial, "The Differential Diagnosis of Endocrine Disorders." Followed by dinner. Discussion by Drs. Wood of Haverhill and Kline of Beverly, ten minutes each.

Thursday, May 5, 1927—Censors meet for examination of candidates at the Salem Hospital, 3:30 P. M.

Wednesday, May 11, 1927—Annual meeting. The Tavern, Gloucester. Speaker and subject to be announced later.

Norfolk District Medical Society

Below are the proposed meetings of the Norfolk District for the remainder of the year. Minor changes may be made in case of necessity.

January 25, 1927—Peter Bent Brigham Hospital. Dr. Harvey Cushing. Time of meeting and subject to be announced.

March 1, 1927—Roxbury Masonic Temple, 8:15 P. M. Dr. Robert B. Greenough. To be devoted to a talk on cancer, with a résumé of the results of colloidal lead treatment.

March 29, 1927—Roxbury Masonic Temple, 8:15 P. M. Dr. P. S. Newell and F. J. Irving. "The Modern Treatment of the Eclampsias and Toxæmias of Pregnancy." If time permits—"The Modern Methods of Handling Prospective Caesarean Cases."

May 10, 1927—Annual meeting. Details of meeting to be announced.

Suffolk District Medical Society

Meetings of the Suffolk District Medical Society and the Boston Medical Library will be held at the Boston Medical Library, 8 The Fenway, Boston, at 8:15 P. M., as follows:
January 26, 1927—General meeting in association with the Boston Medical Library. "Medical Work at the Metropolitan Life Insurance Company." Dr. Augustus I. Knight, Medical Director, Metropolitan Life Insurance Company.
February 23, 1927—Surgical Section. "Clinic on Neurological Cases at the Peter Bent Brigham Hospital." Dr. Harvey Cushing.
March 19, 1927—Medical Section. Subject and speaker to be announced later.

April 27, 1927—Annual meeting. Election of officers. "Medical Education in the Orient and Occident," Dr. David L. Edsall, Dean, Harvard Medical School.

Notices of meetings must reach the JOURNAL office on the Friday preceding the date of issue in which they are to appear.

BOOK REVIEWS

BOOKS RECEIVED FOR REVIEW

- The Meaning of Disease.* By William A. White. Baltimore: Williams & Wilkins Company. 220 pages. Price, \$3.
- The Medical Department of the United States Army in the World War.* Vol. XIV—Medical Aspects of Gas Warfare. Washington: Government Printing Office. 876 pages. Price, \$3.
- The Medical Record, Visiting List or Physicians' Diary.* New York: William Wood & Co.
- The Scientific Basis of Chemotherapy.* By Iwan I. Ostrovlensky. New York. 142 pages.
- Health Control in Mercantile Life.* By Arthur B. Emmons. New York and London: Harper & Bros. 234 pages.
- Chemotherapy with Special Reference to Treatment of Syphilis.* By John A. Kolmer. Philadelphia and London: W. B. Saunders Company. 1106 pages. Price, \$12.
- Index of the Collected Papers of Mayo Clinic and Mayo Foundation—1884-1925.* Philadelphia and London: W. B. Saunders Company. 227 pages. Price, \$5.
- Readings in Abnormal Psychology and Mental Hygiene.* (Various authors.) New York and London: D. Appleton & Co. 789 pages. Price, \$4.
- Human Pathology.* By Howard T. Karsner. Philadelphia and London: J. B. Lippincott Company. 980 pages. Price, \$10.
- Sixty-second Annual Report of the Trustees of the Boston City Hospital.* 139 pages.
- Report of the Third International Congress of Military Medicine and Pharmacy, Paris, April, 1925.* By William S. Bainbridge. 111 pages.
- A Sound Economic Basis for Schools of Nursing and Other Addresses.* By Mary A. Nutting. New York: G. P. Putnam's Sons. 372 pages. Price, \$2.50.
- Lehrbuch der Speziellen Chirurgie für Studierende und Ärzte.* Berlin: Urban & Schwarzenberg. 1244 pages.
- Leitungsbahnen d. Schmerzgeföhls.* By O. Foerster. Berlin: Urban & Schwarzenberg. 360 pages.
- Life Insurance Medicine.* Boston: New England Mutual Life Insurance Company. 219 pages.
- Pathologisch-Anatomische Diagnostik An Der Leiche.* By Dr. Hermann Butzke. Munchen: J. F. Bergmann. 467 pages.
- Modern Clinical Syphilology.* By John H. Stokes. Philadelphia and London: W. B. Saunders Company. 1144 pages. Price, \$12.
- The Surgical Clinics of North America.* Vol. VI, No. III. Philadelphia and London: W. B. Saunders Company. 1119 pages. Price: Paper, \$12; cloth, \$16.
- The Ophthalmic Year-Book.* Vol. XXII. Chicago: Ophthalmic Publishing Company. 315 pages. Annual subscription for Journal and Year Book, \$12.
- Operative Gynäkologie.* By Dr. Ernst Bumm. Munchen: Von J. F. Bergmann. 204 pages.

- Cavernous Sinus Thrombophlebitis.* By Wells P. Eagleton. New York: The Macmillan Company. 196 pages.
- Obstetrics.* By John S. Fairbairn. New York: Oxford University Press. 221 pages. Price, \$1.75.
- The Heart.* By Alexander George Gibson. New York: Oxford University Press. 108 pages. Price, \$1.50.
- The Carrier Problem.* By K. C. Paul. New York: Oxford University Press. 102 pages. Price, \$1.75.
- The Abdomen in Labour.* By Norman Porritt. New York: Oxford University Press. 76 pages. Price, \$1.75.
- The Pathology and Treatment of Diabetes Mellitus.* Second Edition. By George Graham. New York: Oxford University Press. 230 pages. Price, \$2.75.
- Diseases of the Ear.* By Hunter Tod. Revised by George C. Cathcart. New York: Oxford University Press. 333 pages. Price, \$3.50.
- Obesity.* By Leonard Williams. New York: Oxford University Press. 171 pages. Price, \$3.35.
- Histological Technique for Normal Tissues, Morbid Changes and the Identification of Parasites.* By H. M. Carleton. New York: Oxford University Press. 298 pages. Price, \$5.
- Principles of Diagnosis and Treatment in Heart Affections.* Sir James Mackenzie. New York: Oxford University Press. 242 pages. Price, \$3.50.
- The Diseases of Infancy and Childhood.* By Emmett Holt and John Howland. New York and London: D. Appleton & Co. 1018 pages.
- A Textbook of Embryology.* By Harvey E. Jordan and James E. Kindred. New York and London: D. Appleton & Co. 613 pages.
- Collected Addresses and Laboratory Studies.* Vol. II, 1925-1926. Bristol: John Wright & Sons.
- Report of the Connecticut Department of Health—1925.* Cheshire: Reformatory Press. 405 pages.
- Hygiene or Disease and Evolution.* By Burton P. Thom, M.D. New York: E. P. Dutton & Co. 107 pages.
- The Practical Medicine Series—1926.* Chicago: The Year Book Publishers. 737 pages. Price, \$3.
- Reminiscences.* By George Henry Fox. New York: Medical Life Press. 248 pages. Price, \$3.50.
- Surgical Clinics of North America.* October, 1926. Vol. VI, No. IV. Philadelphia and London: W. B. Saunders Company. Paper, \$12. Cloth, \$16 per clinical year.
- The Student Who Smokes.* By J. Rosslyn Earp. Yellow Springs, Ohio: Antioch Press Company. 61 pages.
- The Human Body.* By MARIE CARMICHAEL STOPES. G. P. Putnam's Sons, New York and London, 1926. 268 pages. 7 plates.
- This book is a brief presentation of the physiology of the human body written in a popular form and designed to be used by lay readers. It is clearly and concisely written and exceptionally well illustrated for a book of its type. One can find in it the essentials of both the structure and the function of all parts of the body. It can be highly recommended. This book has had an exceptionally large sale in England, where Dr. Stopes is well known as a Doctor of Science and a Doctor of Philosophy.
- The Social Worker in a Hospital Ward.* By ELSIE WULF. Houghton Mifflin Company, Boston and New York, 1926. 10-347 pages.
- The idea of a Social Service Department in a general hospital was first put into practice at the Massachusetts General Hospital under the

guidance of Dr. Richard C. Cabot. The success of this department of the hospital is too well known to warrant extensive comment. There has never been, however, any carefully written exposition of the work done and the methods used. Visitors to the hospital have seen, from time to time, small parts of the work, but they had never gained anything more than a fragmentary idea of the careful investigation made by the Social Service Department. It is only when a case is studied in all its aspects and carried through until the end results are visible that one can get an adequate idea of the problems presented by the medical staff to the social worker.

Miss Wulkop, long an active worker in the department, has written a most useful book. She has divided her subject into three parts. In the introduction she gives a survey of the material used and discusses the general aspect of medical social work. The second part of the book is devoted to case histories, divided into groups. Eight cases deal with heart disease, eleven with tuberculosis, eight with malignancy, and ten are miscellaneous. Each case gives a summary of the medical data and a more extensive review of the social service work and what was accomplished. These two features are put in parallel columns. At the end of each tabulation there is a narrative description of the situation and comments by both the social worker and by Dr. Cabot. The third part of the book is given over to general comments by Dr. Cabot, a glossary of useful terms and an index of the cases.

No book has covered the subject so thoroughly as this one. It can be highly recommended both as a textbook and as an instructive volume for any practicing physician.

Essays In The History Of Medicine. By KARL SUDHOFF, M.D., Professor of History of Medicine in the University of Leipzig, 1895-1924, translated by various hands and edited, with foreword and biographical sketch, by FIELDING H. GARRISON, M.D., Lieutenant Colonel, Medical Corps, U. S. Army. New York: Medical Life Press, 1926. xiii + 397 pages.

The translation of Professor Sudhoff's "Sketches," published in 1921, has long been awaited in this country. Through the energetic efforts of Dr. Fielding H. Garrison these short papers by the most distinguished medical historian living today have been translated from their most difficult German. Dr. Garrison has had to enlist the aid of many other physicians interested in medical history as he found it impossible to make all the translations himself. Some of them have been made by Drs. John C. Hemmeter, E. B. Krumbhaar, David Riesman, John Rührh, and many others.

The book consists of thirty-eight separate articles, most of them only a few pages in length. They cover a wide variety of subjects, showing the extraordinary diversity of Sudhoff's mind. A few of the titles will give an insight into the character of the papers. They are as follows: "What is History of Medicine," "Schools of Physicians," "History and Epidemiology," "Medicine in the Stone Age," "Salerno: A Mediaeval Health Resort and Medical School on the Tyrrhenian Sea," "Hygienic Directions for Travelers During the Middle Ages," "The Origin of Syphilis," "The Literary Remains of Paracelsus," "Leonardo da Vinci," and his exquisite obituary notices of Pagel, Preuss, Max Höfler, and Johannes Müller.

The book is one of the most important which has come to the hands of medical historians for some time. It forms part of a series of the Library of Medical History, published by the Medical Life Press of New York. The volume contains a few illustrations and an excellent portrait of Sudhoff taken in 1921. To those who cannot read German easily, and especially the difficult German used by Sudhoff, the book will be especially welcome.

Epilepsy, A Functional Mental Illness; Its Treatment. By R. G. Rows, M.D., and W. E. Bond, M.R.C.S. vii + 138 pages. Paul B. Hoeber, Inc., New York, 1926.

This book is largely the work of the late Dr. R. G. Rows, whose previous work along similar lines is well known. He left the manuscript of this volume with his friend, Dr. Bond, before he died, and Dr. Bond has published it without revision on his part.

The point of view taken by these authors is one which lays stress on emotional disturbances as a cause, or at least as a precipitating factor in epilepsy. They examined a large number of war cases and found that many ideas previously expressed were untenable in the light of their experience. They, therefore, examined their cases especially carefully in regard to the contents of each individual patient's mind, using an analysis of dreams as a partial basis for their estimation of the patient's personality. In all their cases they found one common factor, namely, emotional disturbance. "Emotional disturbance was the original cause of the first fit in the large majority of the illnesses, and the same factor instigated many of the recurrent fits." (page 32.) They also found that memories of past experiences and emotional states associated with them were of equal importance to any physical lesions such as sclerosis of the brain.

This book is an excellent summary of the psychogenic factors in the broad subject of

epilepsy. No previous work has covered this phase of the subject so well. It can be highly recommended.

"Die Chirurgie." Edited by M. KIRSCHNER and O. NORDMANN. Urban & Schwarzenberg, Berlin, 1926.

A 319 page section of the above work is devoted to the Surgery of the Stomach and Duodenum prepared by N. Guleke, H. Neiden and H. Smidt of Jena. It forms a portion of the fifth volume of this extensive German System of Surgery now under preparation, and cannot be obtained as a separate publication. It is illustrated by 91 text-figures and 10 colored plates.

The subject is handled with an excellent eye for perspective in the assignment of space to the many aspects which must of necessity be included in a monographic work. A particularly valuable feature is a description of the normal and pathological X-ray findings. The various operations are then described without too great stress on the technical details. The changes in the motor and chemical activities of the stomach produced by different operative procedures are described and illustrated by roentgenograms of actual cases.

In the consideration of special diseases, the diagnosis and treatment of peptic ulcer receives the most extensive discussion. The "gastroenterostomy or resection" question receives impartial analysis and the contraindications to simple gastroenterostomy are definitely outlined.

If this section may be taken as a fair sample of the quality of the entire work, the system will on completion certainly rank with the best of such productions.

Parenthood and the Newer Psychology. By FRANK HOWARD RICHARDSON, A.B., M.D. pp. xvii + 200. G. P. Putnam's Sons, New York, 1926.

This volume treats of the relationships of parents to children and vice versa. The contents may be described as a diluted and attenuated psycho-analysis, which the author frequently terms the "new psychology." Every concept in the book is psychoanalytic, in fact it could not have been written in its method of approach without psychoanalysis.

The book is prolix and fairly accurate but it could have been considerably condensed without omitting any of its salient features. It contains nothing new, nothing different from the usual flood of books upon the same subject.

However, the chapters on the defects of the educational system and that dealing with the education of the parents themselves in their attitude towards their children, are timely. It must be remembered that the parents, particularly the mother, are primarily responsible for the development of the child, because parental influence is active long before the child begins school and is placed under the domination of the teacher. By the time it enters school, the character traits have already become formed and therefore the moulding of the emotional life of the child, on which its future behavior will depend, is due to parental influence. The child requires psychological weaning as well as physiological and if the former is not successfully accomplished, all sorts of neuroses and perversions may develop in later years.

Taking it all in all, this book is better than many more pretentious volumes on the same subject, and is admirably suited for the layman. However, the profoundest treatise on the child-parent relationship still remains, not as a didactic volume for instruction, but in the form of a novel, Samuel Butler's "Way of All Flesh."

The Human Cerebrospinal Fluid. Published by the Association for Research in Nervous and Mental Disease. Paul B. Hoeber. N. Y. 1926. 568 pp.

This latest publication of the Association for Neurological Research represents the combined efforts of thirty-nine American investigators. It has, therefore, the merits of a broad field of inquiry and also the demerits of unequal value of the papers and overlapping of subject matters, inherent in such a book.

An attempt is made, and a successful one, it would seem, to bring the subject of cerebrospinal fluid up to date. The book may logically be divided into four parts, the first portion dealing with the anatomy and physiology of the fluid and fluid spaces, with the historical evolution of the "third circulation." In this part are included the chemistry and hydrodynamics of the fluid under normal and abnormal physiological states.

The second part deals with the various methods of replacement which have recently come into prominence, particularly the subject of air injection and the use of lipiodol.

The third group of papers takes up the different changes in the fluid, of recognized clinical value, cytology, chemistry, etc. In the section also appear papers of a more research character, as that on lead-poisoning.

Finally, two papers on treatment employing the subarachnoid route.

This publication should prove a textbook on

various aspects of the cerebrospinal fluid for a number of years. Much of the matter is fundamental in its application and much is of everyday, practical value. The appended bibliographies add much to the basic qualities of the work. A valuable adjunct to the various papers is the questionnaire which follows each,—questions and answers designed to bring out even more clearly the content of each individual paper.

While the book is of especial value to neurologists, it is to be noted that its design is widespread, as evidenced by the fact that contributions are from physiologists, neurological surgeons, pediatricists, syphilographer, as well as from those more closely allied to neurology and the clinical laboratory.

The Association is to be congratulated upon its fourth and most extensive investigation.

"The Heart." By ALEXANDER GEORGE GIBSON. Oxford University Press.

This small one hundred page volume is a simple handbook of the heart. It is very readable, written in elementary style and is particularly adapted for the use of medical students and general practitioners. It does not go into specific details, but in a general way touches on all phases of diagnosis, prognosis and treatment of heart disease. Most of what it contains, is, of course, common knowledge, but it is evident from various statements embodied in this book that the author has a sound message to tell. Speaking of blood pressure he notes the fact that many persons between the age of seventy and eighty have readings between one hundred and thirty and one hundred and forty. The whole book is so brief that it can be read almost at one sitting, and gives the physician a bird's eye view of the entire problem of heart disease.

The Surgery of Gastro-Duodenal Ulceration.
By CHARLES A. PANNETT, B.Sc., M.D.
(Lond.), F.R.C.S. (Eng.). Oxford University Press.

This small volume gives an excellent summary of many of the important contributions to the modern management of gastric and duodenal ulcerations. The surgical technique, the pre-operative and post-operative care of the patient, as advocated by the author, contain many new and helpful suggestions. The following quotation from Chapter I is an example of his logical reasoning. "It, therefore, seems clear that whilst the likelihood of cancer development is not nearly so great as some American surgeons believed, yet it is a distinct danger to be reckoned

with, and it suggests that it is always preferable to resect a simple ulcer of the stomach whenever the operation is not contraindicated on technical or some other equally adequate grounds." The author believes that gastric and duodenal ulcerations are caused by a specific organism not yet discovered and offers excellent arguments against the other more popular etiological theories, viz.—vascular, neurological and ordinary focal infections. The present European trend being so largely surgical as to treatment of these conditions it is a relief to find an English surgeon who emphatically states that "Surgery should not enter the practitioner's mind until proper medical treatment has been instituted and proved to have failed to bring about a cure." Resection is advocated as the method of choice both in gastric and duodenal ulceration. The author does not believe that technical difficulties are excusable reasons for more palliative procedures in the majority of cases.

The Inflammatory and Toxic Diseases of Bone.
A Text-Book for Senior Students. By R. LAW-FORD KNAGGS, M.C., F.R.C.S., Consulting Surgeon to the Leeds General Infirmary; formerly Professor of Surgery in the University of Leeds. Wm. Wood and Company, New York 1926.

This well written and beautifully illustrated work of 400 pages is exactly what its title page says,—a text-book for senior students, post-graduate as well as pre-graduate. It covers a wide range of subjects, osteomyelitis, tuberculosis, syphilis, the arthropathies, yaws, arthritis deformans, rickets, scurvy, osteomalacia, Paget's disease, leontiasis ossea and osteogenesis imperfecta. We have used the word "cover" with intent, for the author really does "cover" them as far as the etiology, the morphology, the macroscopic and microscopic pathology are concerned. Only the underlying principles of treatment are considered. The author always states his own convictions when contrary opinions as to the etiology exist and gives the evidence which has convinced him. It is not necessary always to agree with him, but his attitude is admirable. He has evidently thought deeply upon these perplexing problems of the inflammatory and toxic diseases of bone, as is shown by his somewhat prophetic remark that such diseases as rickets, osteomalacia, osteitis fibrosa and osteitis deformans are probably closely allied to one another. He evidently inclines to the belief that most of them are caused by toxins elaborated in the body from infective foci and that at some future time the mechanism and specific nature of these disorders will be disclosed.